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ABSTRACT

Third in an annual series, this volume presents brief descriptions of a number of outstanding community college instructional programs identified by the National Council of Instructional Administrators (NCIA). Each description includes the address and telephone number of the college in which the program operates, and the names of the college president and a contact person. Section I provides a complete program description of the recipient of the 1989-90 Annual NCIA Exemplary Instructional Program Award, that is, the Chemical Dependency Program at Rio Salado Community College (Arizona). Section II contains shorter descriptions of the seven programs which received honorable mention in the NCIA competition. They are Apprentice Training at Community College of Rhode Island; Automated Furniture Manufacturing Technology at Itawamba Community College (Mississippi); Environmental Control/Hazardous Waste at Ulster County Community College (New York); Horse Training and Management at Lamar Community College (Colorado); Interpreter Training Program at Front Range Community College (Colorado); Nuclear Engineering Technology at Thames Valley State Technical College (Connecticut); and Swine Management at John Wood Community College (Illinois). Section III presents descriptions of over 200 institutional entries for the NCIA award, listed alphabetically under the following categories: Allied Health; Arts and Sciences; Business; Honors; Hospitality; Instructional Approaches; Nursing; and Technical. Letters from previous Exemplary Instructional Program Award winners, an index of participating colleges and a NCIA membership application conclude the volume. (JMC)

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Community College Exemplary Instructional Programs Volume III

The National Council of Instructional Administrators

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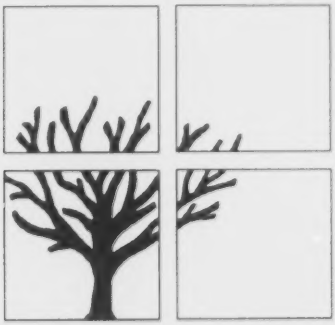

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Introduction

Community College Exemplary Instructional Programs, Volume III is the third, annual volume of outstanding programs published by the National Council of Instructional Administrators. The second volume, published in 1989, contained descriptions of 356 programs. (Available by sending a check for $12.00 to Gerald Bazer, NCIA Director of Publications, Massachusetts Bay Community College, 50 Oakland Street, Wellesley Hills, MA 02181).

This volume contains three sections:

Section I includes the description of the program which won the 1989-1990 Annual NCIA Exemplary Instructional Program Award.

Section II includes the descriptions of the seven programs which won honorable mention for the NCIA Award.

Section III includes descriptions of all the other programs submitted by the established deadline to be considered for the award. Programs in this section are listed alphabetically in eight categories. (Please see Table of Contents). Colleges which submitted programs are listed in the "Index of Participating Colleges" at the end of the book.

The programs identified cite the institutional contact person, the college address, phone number and the name of the CEO.

This publication also includes reactions from the contact persons of the winning institutional programs for 1988-89 and 1989-1990. These reactions address campus responses to the award and the current status of the programs.

Programs in this volume were nominated as exemplary by the participating colleges. Each program was required to offer either an academic certificate or an associate degree. Program narratives were restricted to a maximum 1000 words. Where programs exceeded this limit, they have been edited for this volume. Some other stylistic editing occurred.

Programs submitted were required to address four criteria:

1. demonstrated student success and outcomes.
2. external recognition of the program.
3. addresses a recommendation as set forth in **Building Communities**, a report of the AACJC Commission on the Future of Community Colleges.
4. unique characteristics, i.e., collaborative efforts, business/industrial linkages, innovative teaching/learning approaches, serving special student populations, governmental or school linkages.

In certain instances colleges chose to address each of the four criteria in turn within their program narratives. In other instances colleges generally covered the criteria, but with no direct reference to them.

Beyond presenting its award, the National Council of Instructional Administrators makes no judgement on the merit of individual programs, but is pleased to include all programs as submitted. No college involved in the evaluation of these programs or representative of the Massachusetts Bay Community College Press was eligible for the Exemplary Program Award.

The Council is pleased to provide, as part of its membership series, a copy of this publication to institutional members. On a periodic basis the Council publishes other materials of interest to academic administrators including the NCIA **Newsletter** and literature searches involving instructional topics of current importance.

Additional copies of this publication are available for $12.00 each. Checks should be made payable to *The Massachusetts Bay Community College Press*, 50 Oakland Street, Wellesley Hills, MA 02181.

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Section I

PROGRAM AWARD WINNER

CHEMICAL DEPENDENCY PROGRAM

Rio Salado Community College
640 North 1st Avenue
Phoenix, AZ 85003
(602) 223-4261
President - Dr. Charles Green
Contact Person - Barbara Poe

Chemical dependency has become a major economical, political, religious, social and personal issue for a majority of institutions, families and individuals. Rio Salado has successfully responded to the increasing need for additional experts in the recognition, diagnosis, intervention and treatment of chemical dependency. The development of this Certificate/AAS degree has comprehensively addressed aspects of chemical dependency in our society.

The Chemical Dependency Program provides development of paraprofessional counseling skills specific to the needs of chemically dependent clients. This innovative program serves students from a variety of educational backgrounds and provides linkages with community agencies, industries, and educational institutions. Students benefit from creative scheduling, timely content, networking, and supportive mentoring from peers and instructors. The effectiveness of the program is evidenced by continual increase in enrollment and graduation figures, as well as the high percentage of students employed in the field upon completion. The program has been recognized for its positive impact and value to college, community and society.

In 1982 the program was initiated at the request of community agencies to provide in-house training to upgrade the skills of their employees. In 1984, the classes were opened to the community. By Fall 1989, 101 classes, taught by sixty-four professional practitioners provided education and training to individual students. Enrollment was 1,750 and FTSE 240.5. Sixty percent of the students were enrolled full-time; 120 students were eligible for certificates and/or degrees at the completion of the semester. Practicum and cooperative education students provided services in over 80% of the 100 drug and alcohol treatment facilities. Ninety-eight percent of the graduates found employment in the field.

Substance abuse issues affect everyone. Students in the program cross all social, economic and educational levels; handicapped, ethnic and racial minorities significantly. Men and women are equally represented. The "typical" student is forty-one, recovering from chemical dependency, or dealing with issues of codependency, employed part-time, has little or no college, represents a "high risk" population.

Increasing numbers of students have degrees in related areas (counseling, nursing, and psychology) and are employed professionals for whom substance abuse has become a focus (teachers, Employee Assistance Professionals, law enforcement workers). The curriculum is constantly being revised and updated.

New students are introduced to paraprofessional counseling in their four week Human Relations Training course with an emphasis on interacting with others. The twelve weeks of basic counseling skills and therapeutic modalities that follow provide the foundation for specific chemical dependency courses. Courses specific to populations such as elderly, and adolescents and different cultures are viewed in terms of substance abuse issues. Family dynamics of chemical dependency and intervention techniques are included. The physiological and pharmacological effects of drug use and abuse, and the processes of recovery and relapse are studied in depth. Principles of Alcoholics Anonymous, Adult Children of Alcoholics and Codependency are some of the elective offerings. Seminars cover current issues such as AIDS and chemical dependency, cocaine abuse, domestic violence, eating disorders, Psychodrama, and gambling addictions. There are forty-three credits in chemical dependency and twenty-five in general studies. Most general education courses are also available through teleconferencing or television. Basic skills are required if assessment scores are below college level.

The uniqueness of the program is evidenced by short-term, sequential, learning blocks accommodating day/evening and fulltime/parttime students. Students can begin classes at anytime during the semester. Core classes are available in three, and one half sessions Monday through Thursday, day and evening, with electives held Fridays and Saturdays; special seminars are held Friday evenings. Students are advised at the beginning and end of each class; each student has an advisor and is tracked throughout the program. Students register for one class at a time, thereby spreading their tuition payments throughout the semester. Advisement and orientations are held prior to each semester. All instructors teach parttime but take time to meet in small groups according to the sequential block they are teaching to ensure continuity and avoid overlap. Faculty meetings are held monthly. Cooperative Education students receive elective credits for work (paid or volunteer) done in the field. The 240 hour field Practicum completes the program and is generally a vehicle for employment. Practicum students meet frequently in a supervised group to discuss experiences and provide ongoing support. Rio Salado is a non-campus college. Courses are held in churches in three locations.

Networking and community linkages is one of the most important aspects of the program. All instructors work in the substance abuse field. Since courses are short term, students may have as many as seven different instructors during a semester. These dedicated and professional faculty serve as agency contacts for students who volunteer in the field for cooperative education credits, referrals prior to their field Practicum, and references for entry into the profession. Student networking occurs within the recovering community; most students regularly attend twelve-Step programs. AA meetings for students in the program meet prior to morning classes. Recovery bookstores advertise Rio classes and Rio in turn provides the students a

listing of bookstores selling texts. Agencies notify the program of job openings, as they are eager to hire graduates. Linkages with four year colleges include development of programs which will accommodate these graduates. Courses are transferable to the universities. Credibility and quality are only two reasons the community looks to this College for leadership in the field.

In 1989 the program was recognized by the Maricopa District and the League for Innovation as an Innovative Program of the Year. The program was evaluated in terms of positive impact on the students' educational process, creativity, effectiveness, timeliness and value to other programs for the purpose of replication. The director of the program was chosen the previous year as outstanding employee for improving the quality of the program through addition of courses and enrollments. The program was seen as a model initiative both statewide and nationally. The program continues to receive recognition from community agencies for its achievements and contributions to the field of substance abuse.

SECTION II

HONORABLE MENTIONS

APPRENTICE TRAINING

Community College of Rhode Island
Lincoln, RI 02865
(401) 333-7087
President - Edward J. Liston
Contact Person - John J. Sbrega

In partnership, the Community College of Rhode Island and the Electric Boat Division of General Dynamics have developed an Exemplary Instructional Program which provides apprenticeship training to qualified employees of Electric Boat (Quonset Point, Rhode Island).

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: The two partners launched the program in Fall Semester, 1983, and the first group of students successfully completed all graduation requirements by Spring Semester, 1986. Since then, approximately eighty employees have graduated from this program. It is a measure of Electric Boat's commitment to this program that promotional opportunities are made available to the graduates. For example, five graduates have risen to foremen positions. Each supervises fifteen-twenty employees, and each carries the responsibility to meet schedule and cost commitments. Similarly, four graduates have become numerical control analysts. These employees use design plans, geometric layouts, and numerical control language to develop software for cutting and forming submarine parts. One graduate accepted a position as an engineering assistant. He is responsible to assist in reviewing drawings and specifications and to furnish information for the engineers and planners. Yet another graduate earned a position as a planner. His duties include developing and administering work plans and schedules, processing all work related documents, and verifying work completions.

The Apprentice Training Program has remained in high demand since its inception. Although the majority of these student-employees maintain part-time academic status, principally because of the need to juggle personal and professional schedules, the stability and enduring strength of student enrollments demonstrate the attractiveness of the program. Employees are quick to recognize--and seize--the opportunities for advancement through this program. Thus, in the fourteen academic semesters, from Fall Semester, 1983, through Spring Semester, 1990, only twice did apprentice training enrollments drop below 100. Moreover, in six semesters enrollments soared over the 200-mark. As an indication of support at the highest levels, one executive at EB pointed out to all department heads: "Special attention to these graduates on a continuing basis could provide you with excellent candidates for leadership positions."

EXTERNAL RECOGNITION: This program has attracted recognition and praise from prominent places. Rhode Island Governor Edward DiPrete and Lt. Governor Roger Begin have specifically endorsed this program as an example of the partnership between the business and academic worlds that is so sorely needed to meet the challenges of the future. Similar commendations for this EB-CCRI joint venture have emanated from Rhode Island's WORKFORCE 2000, the Rhode Island Board of Governors for Higher Education, and the two commissioners of higher education in Rhode Island (Eleanor McMahon and Americo Petrocelli) who have held that office since the start of this program. High officials from Electric Boat's parent company, General Dynamics, have also endorsed the value of this program. It should be noted, too, that numerous newspaper articles have identified this program for special recognition in Rhode Island.

BUILDING COMMUNITIES: Recognizing the "mismatch" in the United States between "poorly or narrowly skilled workers" and "present and future work place requirements," the AACJC's Commission on the Future of Community Colleges emphasized the pressing requirement for community colleges to build alliances with employers. Upholding the "educational and civic significance of such partnerships" in its 1988 report, **Building Communities: A Vision for a New Century**, the Commission specifically recommended: "Partnerships with employers for the training and retraining of the community's work force must be recognized as an important component of the continuing education program in community colleges." We at CCRI and EB feel that our joint venture breathes life into not only this specific recommendation but also the general spirit which pervades **Building Communities**.

UNIQUE CHARACTERISTICS: The Apprentice Training Program features several unique characteristics. For example, the program fits smoothly into existing structures each partner has already arranged to promote education and training opportunities: Electric Boat's Trade Training Department and CCRI's Center for Training and Development. Personnel in both areas shepherd the day-to-day operational needs of this program (e.g., scheduling, advising, coordinating conferences, etc.). Also, these two areas arrange for the necessary cooperation between the "academic" and "practical" worlds. Thus, the academic coursework and the practical requirements must act as mutual reinforcements; each complements--and serves--the other.

This continuing close coordination was established from the outset: professional experts at EB and CCRI designed the program and continue to monitor and modify requirements as changing needs of the workplace dictate. Another unique feature is that both partners seek to accommodate the busy schedules of the students. Courses are offered as much as possible at the work site and at times that bridge changing work shifts for the convenience of the students.

Graduation ceremonies are held at both sites. EB host a special recognition dinner for the graduates (and guests). Top-level officials from EB and CCRI use the occasion to award certificates and prizes to the graduates and--perhaps most important--demonstrate the firm commitment of both partners to this program. In addition, the

EB graduates are specially designated in the CCRI graduation program. They receive their degrees together, and the degrees are presented jointly by CCRI's president, a high official from EB, the governor, the board of governors, and the commissioner for higher education.

As noted, EB makes a special effort not only to encourage employee participation in this program but also to provide opportunities for advancement to the graduates. For example, a list of graduates is distributed to all department heads accompanied by a request to consider them for advancement/promotion. Furthermore, EB officials conduct a series of lengthy interviews with each graduate to explore career potential and specific areas of opportunity.

AUTOMATED FURNITURE MANUFACTURING TECHNOLOGY

Itawamba Community College
653 Eason Boulevard
Tupelo, MS 38801
(601) 842-5621
President - Dr. W.O. Benjamin
Contact Person - Charles Chrestman

Itawamba Community College has accepted the national challenge to offer academically rigorous, technically challenging Associate of Applied Science degree programs that prepare students for work in the information age. One program that is leading the way in this endeavor is the College's Automated Furniture Manufacturing Technology Program.

The Automated Furniture Manufacturing Technology Degree Program has created the ideal environment for teaching the design and manufacture of upholstered furniture. Utilizing a combination of academic, related, and specialty courses, the curriculum offers students the unique opportunity to study general operation of plants, plant layout, production procedures, materials, drafting and design concepts, motion and time study, and automated furniture manufacturing processes.

In July 1989, three years of research, planning and work became a reality when the College opened a $300,000 Automated Furniture Manufacturing Center to support the program's educational needs. The center, the only one of its kind in the world in an educational institution, is designed to serve more than 100 furniture manufacturers in the College's district. It is the result of a six way partnership that involved the College, furniture industry personnel, the Mississippi State Department of Education Office of Vocational-Technical and Adult Education, the Tennessee Valley Authority, the Appalachian Regional Commission, and Gerber Garment Technologies, Inc.

The program uniquely addressed the **Building Communities** goals related to technology and teaching, service: reaching out, and alliances with employers. Many other visions of the report are embodied in the program, but will not be listed. This is done by providing a wide range of educational services fostered in the program's five major goals. These goals are:

1. To serve as an instructional center for A.A.S. Degree students.
2. To serve as a demonstration center for automated furniture manufacturing equipment.
3. To serve as a Technology Transfer and Diffusion center where industrial personnel can learn about new process technology.
4. To serve as an R & D center for industry personnel who want to use the lab to develop new products, investigate the feasibility of capital investments, and so forth.
5. To serve as a center for customized training, upgrade training, or retraining for the furniture and apparel industry.

Currently twenty-five students are working toward an A.A.S. Degree in Automated Furniture Manufacturing Technology in day and evening classes. The three graduates of the program are currently employed in local furniture industries; one as a designer; one as an industrial engineer; and one as a plant engineer.

A dozen local industries have utilized the program for classes, technology transfer and diffusion activities, and other kinds of assistance since the automated center opened in July. During the first eight months of the center's operation, more than 1,300 guests from thirty-eight states and six foreign countries (Australia, Brazil, China, Korea, Taiwan, and West Germany) have visited the program for tours, demonstrations, and information.

Carroll Marsalis of TVA says, "We try to help organizations find a new way of doing things to enhance the area's economic development and improve a business's productivity. The "furniture factory" is a good investment because the furniture industry in Mississippi is growing. The northeast Mississippi area produces more upholstered furniture than any other region in the country. Ultimately this center will be a state, national, and international model."

"The Automated Furniture Manufacturing Center features the most advanced equipment available and is one of only a few like it in the world," said Gerber General Manager Peter Tredwin. "It's refreshing to see money invested in endeavors such as this."

ENVIRONMENTAL CONTROL/HAZARDOUS WASTE

Ulster County Community College
Stone Ridge, NY 12484
(914) 687-7621
President - Robert T. Brown
Contact Person - Theodore Skaar

In 1974, the State of New York Department of Environmental Conservation (DEC) entered into an agreement with the United States Environmental Protection Agency (EPA) to develop an Associate in Applied Science Degree Program in Water Quality Monitoring (WQM) at Ulster County Community College. The primary goals of the agreement were to demonstrate the effectiveness of two-year technical programs as preparation for careers in water pollution control, to create a national prototype training program for use in other areas of the country, and to offer assistance and guidance in the development of similar programs.

Training materials (Learner's Guide: Water Quality Monitoring, Nutrients, and Indicator Organisms) were developed and distributed both nationwide and worldwide. In those manuals, as in all program materials, objective based learning was emphasized: prior to working towards any goal the student would know the objective, the resources, the conditions under which learning would occur, and the acceptable performance level.

In recognition of the depth of this program, the New York State DEC approved the program for Grade I certification (the State's highest) in wastewater operations. In September of 1983, the WQM program was selected by the National Center for Vocational Education (located at Ohio State University) as one of the top five vocational education programs in the United States. Among the criteria considered were soundness of the program, support by the institution, excellence in teaching, and the record of graduate placement. Since that time, the program has been enriched both by the addition of sophisticated instrumentation (such as Inductively Coupled Plasma) and by the receipt of $279,249 in grant funding from federal, state and local sources including the NSF, the EPA, VEA, and the State Education Department.

Major changes in core course structure in 1984 provided specialized training in many facets of hazardous waste, a discipline expected to show 500,000 new employees within the next five years. In that year, the program's title was changed to "Environmental Control/Hazardous Waste (Water Quality Monitoring) [EC/HW (WQM)]". A special curricular requirement is a cooperative education experience during the summer. Here again, there has been excellent cooperation from state and municipal authorities as well as business and industry in the region.

Each year the College's Career Center conducts a follow-up survey on graduates of all its programs. Of the 183 students who have graduated from the EC/HW (WQM) program since 1975, over 75% are either employed in the field or are seeking

additional field-related training. The Mid-Hudson Executive Planning Council has listed the national projection for environmental control employment as "very good" --- in reality, it is excellent. For the past eight years, there have continually been more jobs available than graduates to fill them. Salaries range from $18,500 locally up to $35,000 in the large cities. In fact, the New York City Department of Environmental Protection actively attempts to hire the entire graduating class. Other employers include some of the top environmental engineering firms in the nation. Graduates seeking further education benefit from "direct transfer" agreements with the Pennsylvania State University and the State University of New York College at Plattsburgh as well as with other upper division campuses.

While there are many **Building Communities'** recommendations addressed by the EC/HW (WQM) program, perhaps the most recent initiative of a 2+2 program with area high schools, is most noteworthy. This program, an intimate partnership between the community college and the high schools, is aimed at the block of approximately 60% of high school students who are not certain of their goals after high school. In this program, the EC/HW (WQM) staff, through frequent visitations with grades ten, eleven, and twelve, attempt to help the students discover technical careers, to outline academic pathways which could lead to those careers, and to provide technical as well as academic support. Since 1987, two required courses in the EC/HW (WQM) curriculum have been offered at the two high schools in the College's service area. Preliminary results of the 2+2 efforts indicate a renewed interest in math/science courses in eleventh and twelfth grade students. The EC/HW (WQM) program has served as the core curriculum in establishing a 2+2 school/college consortium.

Innovative from its inception, the EC/HW (WQM) program continues to demonstrate that education need not be stifling. Its success indicates that training programs can be responsive to outside influences while still maintaining academic integrity.

HORSE TRAINING AND MANAGEMENT

Lamar Community College
2401 South Main
Lamar, CO 81052
(719) 336-2248
President - Dr. Marvin Lane
Contact Person - Herb Gerhard

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Success is easy to measure in the Horse Training and Management Program at Lamar Community College in Colorado. Over 100 students apply annually, forty students are screened through an interview process and admitted based on physical space limitations, over 60% of enrollees are females and ethnic minorities, over 75% complete the two-year program, and placement rates approach 100% within thirty days after graduation.

The alliance with horse training managers and operators (employers) throughout the theory, laboratory, and internship components contributes to the success, marketability, and accountability of graduates. Salaries for initial placement average between $16,000 to $18,000 a year. A number of graduates have achieved regional and/or national prominence.

EXTERNAL RECOGNITION: The HTM Program has been featured on NBC's "Today Show", in other print media such as the **Western Horseman, Quarter Horse Journal, Horse Illustrated, The Denver Post, Kansas Territorial**, and other regional and national publications. National publications in Canada, Brazil, and Holland have also carried feature articles on the HTM Program. In 1989, the Program was selected by the Colorado State Board for Community Colleges and the Colorado Commission on Higher Education as one of three Programs of Excellence from over 3,000 approved community college programs in Colorado.

BUILDING COMMUNITIES: Reference to Page 39, item #4, "Connections Beyond the College", specifically "...alliances with employers be carefully integrated into existing community college programs; decision-makers ...promote economic development efforts within their State or region."

A responsive Program Advisory Committee of trainers, breeders, graduates, and owners provides advice to program personnel.

The program allies itself annually through internships and graduate placements with over 100 horse training facilities nationwide and in Canada.

The program impacts the Lamar and southeast Colorado economy over $1 million annually through visitors, equine activities, and purchases of local goods and services.

Through intern visitations, professional involvement, and service as judges at regional and national horse shows, three full-time instructors stay current in methodology and technical knowledge.

Demands for student interns, graduates, and trained horses have increased regionally, nationally, and internationally.

UNIQUE CHARACTERISTICS: The HTM Program is one-of-a-kind in Colorado and in western United States. Horse handling, horse and stable management, job-seeking, and job-social skills are chiefly taught in a lab situation. Horse breeders from Colorado and regional states consign lab animals to the program to be trained in a controlled environment. Although less that fifteen years old, the HTM Program has attracted students from all fifty states and from Japan, Brazil, Australia, Holland, Canada, and England. The internship requirement in the final semester builds an alliance with the horse industry and bridges the gap between the college environment and the working world. Recognized equine experts provide seminars and special units of instruction to students in theory and practical applications.

The horse industry, in providing sporting diversion to an affluent society, is a multimillion dollar business in the United States, allowing the LCC program to provide a variety of satisfying career opportunities as assistant trainers, stable managers, farm managers, equine instructors, and journalists and photojournalists.

INTERPRETER TRAINING PROGRAM

Front Range Community College
3645 West 112th Avenue
Westminster, CO 80030
(303) 466-8811
President - Cary A. Israel
Contact Person - Ann Topliff

Front Range Community College established an Associate of Applied Science Degree and a Certificate Program in Interpreter Training (ITP) in 1978. This program, which trains sign language and oral interpreters for deaf and hearing impaired individuals, is the only such program in the State of Colorado and the Rocky Mountain region.

The demand for interpreters has grown in the last decade because of the passage of two important pieces of legislation. Public Law 94-142, implemented in 1975, is known as the Education for All Handicapped Children Act. This resulted in mainstreaming of many deaf children into public schools within their home districts. Qualified interpreters within classrooms allow for successful integration of deaf and hearing impaired children in the regular classroom. Section 504 of the Rehabilitation Act of 1973 (amended 1978) prohibits discrimination on the basis of handicap. One result of this has been more jobs and promotion possibilities for deaf people. In this arena, interpreters are hired to facilitate the communication process between hearing and deaf individuals on the job, in interviews, during training, at medical appointments, and a variety of other settings.

The Interpreter Training Program at Front Range Community College trains hearing students to function as interpreters in a variety of settings. Most graduates, 85%, become educational interpreters and function at all levels from kindergarten through graduate school. Other graduates work in federal and state agencies, vocational rehabilitation settings, hospitals, mental health agencies and in free-lance settings. The profession of interpreting is a rapidly emerging and ever-changing field, making it conducive for entrepreneurship as some graduates contact businesses and agencies and design their own jobs. This program boasts a 95% placement rate of its yearly graduating class of fifteen-twenty.

The Colorado Commission on Higher Education (CCHE) recently recognized the Interpreter Training Program as one of five Programs of Excellence in the State of Colorado. Two and four year institutional programs competed for this honor. The result of this award and the $350,000 grant from CCHE has been the establishment of an interpreter training laboratory which is the first such lab in the United States. Upon completion, fifteen student carrels will be equipped with audiocassette players, VCR's, monitors, camcorders and headphones. Students will be able to practice all aspects of interpreting at the carrel, videotape or audiotape themselves, critique their work, and

continue practice. An instructor's console is linked to each of the carrels, allowing an instructor or lab assistant to observe the student's work and provide feedback through headphones.

Additionally, computer aided instructional materials are being developed for tutoring interpreting students. The Interpreter Training Program here is the first program in the country to develop such materials. Front Range Community College is also co-hosting the first national teleconference on interpreting issues on March 23, 1990.

Sign language is not a static, frozen language, easily represented in textbooks. It is a language composed of movements, facial expression and body language. In American Sign Language, vocabulary is seen on the hands, but the grammar and syntax are seen on the body and face of the signer. It is for this reason that the use of videotaped materials and laser disk computer aided instructional materials can so greatly enhance instruction.

The Colorado Commission on Higher Education award has allowed Front Range to take advantage of existing technology, configure it to meet our specific training needs, and make quality instruction more accessible to our students. However, as stated in **Building Communities**, this technology should be a means, not an end. Consequently, many deaf and hearing impaired community members are hired as laboratory assistants - providing students with personal instruction in addition to the sophisticated electronic tutorial system. The program has two full-time instructors - one hearing and one deaf. This allows students to receive instruction from a practitioner and a consumer of interpreting services.

The Interpreter Training Program at Front Range Community College is also recognized nationally as a program of excellence. Evidence of this is that the program has been consistently selected as one of ten programs in the United States to receive funding from the U.S. Department of Education, Rehabilitation Services Administration. Front Range has been successful in three national competitions because of the excellence of the program.

This funding (approximately $100,000 per year) has been used exclusively for outreach training in the states of North and South Dakota, Montana, Wyoming, Utah, Washington and Alaska. In addition to providing workshops and classroom instruction in these states, the Interpreter Training Program has worked closely with other community colleges to assist them in developing interpreter training curriculum and programs. Washington is the only state in the region we serve which has existing interpreter training programs. We are currently working with Salt Lake City Community College to help the College establish an interpreter training program.

NUCLEAR ENGINEERING TECHNOLOGY

Thames Valley State Technical College
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June 1989 marked the fifth graduating class of a unique associate degree program developed and sponsored jointly by the Connecticut State Technical College System and Northeast Utilities. As a perceived outgrowth of the Three Mile Island and Chernobyl nuclear "incidents", it was correctly assessed that the federal Nuclear Regulatory Commission (NRC) would require at least a two-year associate degree for all nuclear power plant watchstanding personnel by 1991.

With no such available two-year nuclear program existing in the entire northeast, the Nuclear Engineering Technology Program at Thames Valley State Technical College became only the eighth such program in the entire country. With the strong support of its twelve member Nuclear Advisory Committee (NAC), an ABET-accredited curriculum was developed which would satisfy three major goals: 1) provide a strong technical program which would fully satisfy the NRC's academic licensing requirements for commercial nuclear power personnel; 2) produce a recognized, accredited two-year technology program which would prepare the graduate for an easy transition to a four-year baccalaureate engineering degree; and 3) establish a quality nuclear education program which would allow the graduate to successfully find employment in any of the numerous nuclear science or engineering-related business in the northeast.

The nuclear program only permits twenty-five full-time students to enter each year. Of these, up to twenty positions are set aside for full scholarships offered by corporate members of our NAC. These full scholarships provide: 1) all tuition and student fees; 2) all textbook costs; 3) a monthly stipend of $400.00; and 4) guaranteed summer internship employment for both summers at one of our NAC member's facilities. Most importantly, the student incurs no obligations from accepting a scholarship, upon graduation he or she is free to pursue whatever educational or employment goal the student may have set.

To date, there have been ninety-one graduates from the program. The majority, some 88%, have opted to immediately accept employment in the nuclear field, while the remaining 12% have gone on to work toward their baccalaureate degree. Virtually all of these continuing students have opted for mechanical engineering programs at the University of Connecticut or the University of New Haven, or a nuclear engineering program at the University of Lowell. As our NAC membership includes the respective

department chairmen from these three ABET-accredited universities, our graduates can complete their baccalaureate work with two additional years of continued study with the judicious selection of electives.

As the nuclear industry workforce has historically been comprised primarily white male, ex-military personnel, the College has made a concerted effort to encourage women and minorities in this demanding technical field. We are proud of our results, as this effort addresses the number one recommendation as put forth in **Building Communities**, an average 20% of our graduates are women or minorities, as are 45% of this year's freshman class. Similarly, the degree program has been fully expanded into the evenings to permit the full-time worker the opportunity to return to college to obtain a degree - currently some 225 part-time evening students are in the nuclear curriculum. The program to-date enjoys a phenomenal success rate. All of our continuing four-year degree program students have performed well, and the employer demand for graduates far exceeds our graduation numbers. Once employed, graduates have also documented a positive track record in their chosen employment field.

Our program underwent its first ABET accreditation visit in January 1989, and received full ABET accreditation; we are now only the second two-year nuclear program in the country to be ABET accredited. Similarly, we have just completed the conversion of our quarter-based system to a semester system for the 1989-90 Academic Year. The Nuclear Program has been designated as a Program of Excellence within the state of Connecticut.

SWINE MANAGEMENT

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The John Wood Community College Swine Management Program began in 1980 with an instructional philosophy encompassing the specialized knowledge and skill development associated with swine production and related agribusiness. Heavy emphasis is placed on agriculture leadership development through active and successful participation in the JWCC Agriculture Club.

This program boasts 100% placement of all graduates. Average enrollment during the past ten years has been twenty-three full-time students in addition to an active evening class schedule.

This program was developed in response to existing local needs and growing state-wide demand for swine managers as verified by employers within the swine production industry. The curriculum was developed and is monitored by an active advisory committee of local pork producers. In this manner, students are assured of an education which meets today's needs while keeping abreast of technological developments. Each John Wood Swine Management student participates in an eight-week, four credit hour internship with a pork producer in a Swine Management operation. As a result, each student receives valuable on-the-job training while receiving wages during this internship experience. The program is the only one in the state of Illinois with a laboratory and classroom under one roof. The agriculture staff has given seminars at the American Vocational Association Conference in New Orleans and Atlanta on this unique, innovative educational program.

The basic purposes of this program are to increase efficient pork production, increase employability of students, promote cost-effective operations, produce a higher quality product within a better production environment and promote efficiency of the pork production business. These objectives have been accomplished which can be directly attested to by the regional, state and national recognition given to this program.

This program was identified as the best Agricultural Technology Instructional Program in the United States in 1987 as determined by the National Association of State Departments of Agriculture. This organization is comprised of all the Commissioners, Secretaries and Directors of Agriculture who are elected or appointed in each of the fifty states within the United States.

The Swine Management Program at JWCC received the Best Instructional Program Award within the twelve-state midwest region in 1987 (won by Ohio State University in 1986). Subsequently, we competed at the national level with the other three regional winners at which time we were judged as the Best Instructional Program in the Country. (This recognition was given to California State University in 1987). Each of these two awards carried a monetary recognition of $7,000. We endowed the $14,000 in the John Wood Community College Foundation and are awarding student scholarships each year based upon the interest earned on the $14,000.

The program employs a distinctive specialized curriculum in a creative combination of classroom instruction, laboratory work, occupational internships and Work/Study opportunities. Upon graduation, the students have averaged five job opportunities (average salary - $16,000) each.

The program is housed in a facility which seats twenty-five people comfortably within the classroom and also houses a seventy-two-sow farrow-to-feeder pig operation which produces over 1200 feeder pigs annually within the classroom/production facility. Since the facility was constructed under the guidance of the subcommittee of the JWCC Agriculture Advisory Council, it was done in direct and close cooperation with the agriculture business community. Consequently, the agribusiness community has

consistently recognized this program as a "model" program linking education and business. This extensive cooperation with the business community addresses one of the most basic recommendations needed for success in modern-day education as put forth in **Building Communities**.

The John Wood Swine Management facility was constructed from blueprints designed by members of the Swine Subcommittee of the JWCC Agriculture Advisory Council. The curriculum was designed by members of the Adams and the Pike County Pork Producers in concert with the Board of Directors of the Illinois Pork Producers, a commodity organization working directly with pork production in Illinois. The instructor, a proven animal husbandryman and educator, was selected through cooperative efforts of members of the swine production industry and administrative staff at John Wood Community College. The primary instructor has been identified as recipient of the Outstanding Educator Award by the Illinois pork producers organization in addition to the two primary instructors receiving the Outstanding Instructor Award at John Wood Community College.

John Wood Community College is committed to students by maintaining low tuition costs ($29 per credit hour), offering talent scholarships to agriculture students totaling over $7000, assisting students in finding part-time employment and actively employing Work/Study students.

The Swine Management Program prepares students to make significant contributions to agriculture by improving their knowledge and skills in pork production. To those in agriculture, the result is a competitive advantage by increasing the efficiency of pork production. To the consumer, the result is a better quality product, both in nutrition and taste.

SECTION III

ALLIED HEALTH

DENTAL HYGIENE

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In 1989 the Dental Hygiene Program realized the end of its first decade of service to students and the community. During these ten years, 99% of the graduates have been licensed as dental hygienists; however, the real measure of success is indicated by 95% of these graduates having remained in the field: 89% are actively working in Delaware. Outcome surveys reveal that 93% of the graduates routinely participate in continuing education offered through the program and 22% have initiated advance degrees in the fields of education and dentistry.

Over the decade, the Dental Hygiene Program has been heralded by agencies for several facets of its effort. Aside from being recognized as meeting academic standards by the Commission on Dental Accreditation, the program has been acclaimed for the quality of its graduates by the Delaware State Dental Society. Additionally, the program's efforts with the handicapped and mentally ill were recognized by an award from the Delaware Alliance for the Mentally Ill and the Division of Mental Retardation. The American Dental Association (**ADA News**, Vol. 20, No. 3, Feb. 1989) and Dental Schools Association have publicly cited the program as a model of creative management in efforts to meet manpower needs. Finally, the United States Air Force defined its interactive agreement with the Dental Hygiene Program as "a community model to be encouraged by all Air Force Base Dental Clinics".

The Dental Hygiene Program exemplifies the true meaning of **Building Communities** as it provides opportunity for students to improve their lives through meeting their goals while interacting collaboratively with a variety of community agencies. The program has completed these endeavors with a recognized level of excellence and continued commitment to both the community and its graduates.

The unique initiation of the Dental Hygiene Program was through combined efforts of the College and the city government to create an educational program and a community dental health clinic focused on meeting the manpower needs of the dental community and a mechanism for care in special populations. Over the years the program has provided avenues for community agencies to obtain dental service for

clients who do not qualify for care through routine methods. Within the Dental Health Clinic, patients are treated by licensed dentists and dental hygiene students thus offering total dentistry in a community college setting; a unique opportunity not often observed in other two-year dental hygiene schools. Agencies benefiting from these contractual agreements include Headstart, Medicaid, Vocational Rehabilitation, Delaware Aids Program, the Division of Mental Retardation and Senior Citizen Centers.

Recent manpower shortages pressed the program to meet greater challenge. The State was in need of hygienists in the rural counties but did not desire to commit the required capital expenditure for a second dental hygiene program. The examination of available resources resulted in an agreement with Dover Air Force Base for the use of facilities in return for preventive care services to base personnel, dependents, and retirees. Recognized as a fully accredited extension site, the program operates through assigned full-time faculty rotations from the Wilmington Campus augmented by local part-time faculty offering a comprehensive off-campus program. In June 1990 the third graduating class will be employed meeting the manpower need through a collaborative, mutually beneficial design.

In efforts to integrate program goals with that of the community, the Dental Hygiene Program has participated actively with several community groups to promote futures in health care. Examples of these activities include career fairs with the Business/Industry/Education Alliance, Dental Health Internships for high school students and the development of scholarships offered by professional organizations to provide opportunities for needy students. The program has initiated educational inservice programs for junior high and high school science teachers by offering Health Internships for Science Teachers; a program to develop science teachers' awareness of the basic sciences in health technology. Further, the program has begun development on a Tech Prep 2+2 program for early entry and advanced credit for vocational and academic high school students desiring to enter dental professions.

DENTAL HYGIENE

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DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: One of the major means of assessing the success of Oakland Community College dental hygiene students is through the National Dental Hygiene Board Examination results. The passing of this extensive examination is required for licensure in most states. It is taken approximately one month prior to graduation and measures knowledge of all major areas of the curriculum as well as requisite and prerequisite sciences.

The results have been outstanding. Last year 100% of the Oakland Community College graduates passed the examination and performed above the national average (for all colleges and universities) in all areas of the curriculum. Historically, 99% of Oakland Community College graduates have passed the examination and generally score above the national average.

Another criterion for assessing the success of students is employability. Upon licensure, the Oakland Community College graduates have a 100% employment rate.

The success of our graduates can be attributed to many factors such as:

A selection process designed to perpetuate demonstrative success.

A constant monitoring and evaluation of the curriculum to assure its propriety and continuous updating of the curriculum based upon knowledge of a changing profession.

Dedicated and enthusiastic students, faculty and staff who are willing to "go the extra mile" to achieve program and career excellence.

EXTERNAL RECOGNITION: The Dental Hygiene Program is accredited by the American Dental Association Commission on Dental Accreditation which is recognized by the U.S. Department of Education and the Council on Post-Secondary Accreditation. In the most recent formal report submitted by the Commission, the faculty were commended for their dedication and enthusiasm in the courses they teach.

The community interest is apparent by our applicant pool. Each year there have been at least seventeen applicants for each "seat" in the program. Community recognition is also apparent by the continual positive feedback received from employers of our graduates, patients in our clinic and from institutions which provide enrichment experiences for our students.

BUILDING COMMUNITIES: The Dental Hygiene Program has addressed the issue of student retention. Retention, in this case, is defined as the percentage of students who complete the program.

The high retention rate may be attributed to many steps taken to ensure the students' success. They are:

The implementation of Assessment of Skills for Successful Entry Transfer (ASSET) to enhance student success through orientation, assessment of English, reading and mathematical proficiencies; advising; planning; and registration.

A well-defined selection procedure which is carefully monitored and requires students to be successful in ten prerequisite courses before entering the program and at the same time allows them to meet this goal at a pace that is comfortable for them.

A campus Individualized Instruction Center (IIC) which provides assistance to students who need reinforcement in academic areas -- offering speed reading, reading improvement and comprehension as well as study and test-taking skills.

A mandatory Information Session for all dental hygiene applicants to fully

explain the selection procedure, curriculum, licensure, costs, services available to students along with valuable information about employment opportunities in dental hygiene.

A three-four hour Orientation Session for students after they have been selected into the program and prior to their first dental hygiene course.

Faculty mentoring and advising.

A health examination prior to entry into the program to evaluate physical conditions which could be detrimental to the students' success such as poor vision, arthritis, and carpal-tunnel syndrome. TB tests and immunization records are reviewed and the student is informed regarding the Hepatitis B vaccine. Immunizations are updated as deemed necessary by the physician.

Regular monitoring of students' progress by faculty and staff throughout the program.

The conducting of review sessions and "mock boards" prior to the National Dental Hygiene Board Exam.

A student mentoring program where second year students are assigned a "little sister or brother" in their first year to help them over the initial adjustment to study and clinical practice.

UNIQUE CHARACTERISTICS: The Dental Hygiene Program offers the students enrichment experiences which are unique types of experiences that cannot be provided in the basic program or clinic. Each student is given the opportunity to see patients through our agreements with Maxey Boys Training Center (a juvenile detention center), the Veteran's Administration Hospital, Cloverdale School for the Mentally Impaired and the Montgomery Developmental Center (a center which houses 100 students with developmental disabilities including mental retardation, epilepsy and cerebral palsy). These experiences expose our students to individuals of all ages who may be mentally and/or physically compromised.

Students also observe in private dental offices with such treatment specialties as Periodontics, Orthodontics, Endodontics and Oral Surgery. These additional experiences provide a broader, peripheral view of the dental field and ultimately a comprehensive understanding of patient care.

This year we are starting research relating to Geriatrics. Our students are involved in a research project to determine what can be done to improve dental care for the elderly. The research project addressed the importance of a new approach to the aging populations' oral care. A pilot project is planned, utilizing senior dental hygiene students and clinical faculty. A relationship between medical conditions, medication and sulcular fluid components in the geriatric patient will be investigated.

DENTAL HYGIENE

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The Dental Hygiene Program at Pensacola Junior College has an outstanding record of student success and innovative approaches to education. The program addresses two recommendations from the **Building Communities**. These are: 1) Community colleges should offer first rate technical education and career-related programs to prepare students for working in the information age and 2) Decision makers across the country should fully use the resources of community, technical and junior colleges to promote economic development efforts within their state or region.

The first recommendation is met through an outstanding record of student success on both written national boards and state board clinicals. The lowest student passing rate for the past three years is 94%. The Dental Hygiene Program is fully accredited by the Commission on Dental Accreditation of the American Dental Association. The Program also has the unique distinction of having three ADA consultants and site representatives as faculty members.

The second recommendation is met through two unusual agreements. First, sophomore dental hygiene students who have met their clinical requirements may opt for a contract. This contract allows students to pursue their special interests in dentistry through clinical practice in a private dental office under the supervision of adjunct instructor dentists. The office schedules patients for the students who function in the capacity of practicing dental hygienist but without remuneration. This process allows students to select a wider variety of clinical experiences without the pressure of a "grade".

The second agreement was begun to meet the results of a survey which indicated an increase in the demand for dental hygienists in Panama City and surrounding communities. A needs assessment plan determined a shortage of dental hygienists in the Bay County area. Gulf Coast Community College had, in place, a dental assisting program and a six chair clinic. Distance between Gulf Coast Community College and Pensacola Junior College is 100 miles. To maximize existing facilities and avoid the expense of establishing another dental hygiene program, the Pensacola Junior College administration proposed an articulation plan to Gulf Coast Community College. Both Colleges would share faculty and facilities while providing education for shared dental hygiene students.

Pensacola Junior College would offer out-of-district courses while faculty and students would commute on alternate semesters. Extramural clinical experiences would be offered at the numerous military bases within the radius of the two colleges. Gulf Coast Community College students would be assigned to Tyndall Air Force Base and

Eglin Air Force Base. Pensacola Junior College students would be assigned to the Naval Air Station, Corry Field and the Navy Hospital. When outside assignments were necessary, use of these clinical facilities would reduce the commuting time and distance for the students and faculty. Thus, external community resources and internal college resources would be used to maximum capacity. This would provide the necessary education and fulfill local needs. The articulation agreement is in its second year, the number of students has doubled, and the mutual cooperation between the two colleges has shown that partnership in education is critical to building communities.

DIAGNOSTIC MEDICAL IMAGING

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The Diagnostic Medical Imaging Program integrates an innovative curriculum design incorporating computer assisted instruction, video taping of student performance, a competency based clinical component and values clarification to prepare students for a career in medical imaging. Our methods have proven very successful with a cumulative passing rate on the national certification examinations well above 90%.

Success is probably best demonstrated, however, in the partnerships we have established with statewide institutions and in job placement. We are currently affiliated with twenty-nine institutions located in ten different community college districts and two states. Collectively, they provide students with access to a vast array of procedures ranging from the routine to specialized studies at the forefront of medicine. Students work with some of the most sophisticated and technologically advanced equipment in the profession. Much of the equipment is computer controlled, thus enabling our students an opportunity to observe first hand "high tech" in action.

Many graduates hold upper level positions in management, education and special areas such as computed tomography, magnetic imaging, and special procedures. In addition, department managers from various hospitals have expressed a preference to hiring our graduates. In some institutions, alumni hold over 75% of all staff positions in the radiology department. For the past seven years we have been fortunate in that 100% of these graduates seeking employment have found a position. The College regularly receives job notices soliciting graduates.

We serve a student population representing a wide cross section of races, nationalities, creeds, and abilities. The majority of our student body is composed of minority and disadvantaged students. Every student is given the opportunity to maximize his/her potential. We conduct separate but integrated programs in medical radiography (x-ray

technology) and diagnostic medical sonography (ultrasound). Both programs lead to the AAS Degree and eligibility for national certification and/or state licensure in only twenty-six months. In addition, the sonography program is offered simultaneously as an advanced certificate option for qualified health professionals. The curriculum, fully competency based, has been designed to integrate new imaging modalities as the job market dictates. It also permits maximum transferability of courses to senior institutions since many graduates have gone on to advanced academic degrees or specialization.

The Radiography Program was cited by the Illinois Department of Adult Vocational and Technical Education as a model program during its last on-site evaluation visit. In 1986, it was honored as one of the three most outstanding vocational programs in the City Colleges of Chicago. Each program is fully accredited by the Committee on Allied Health Education and Accreditation (CAHEA), the national accrediting agency, for the maximum allowed period of five years. The Sonography Program is also approved as a statewide program.

Both current and future programs center around a first year core curriculum. All students, regardless of major, spend the first year studying preparatory courses common to each field. The first two semesters are spent in a combined academic program which includes a period of clinical observation. Following the first year core curriculum, the final fourteen months is spent in a combination of classroom courses and extensive patient care experiences concentrating in the student's chosen major. We have integrated computer assisted instructional lessons into a majority of our academic courses. Since 1982, our students have logged over 10,000 hours of computer time on our main frame PLATO system. Before actually caring for patients, all students must satisfactorily complete extensive laboratory testing which simulates the actual procedure. Video taping of student/"patient" situations permits self evaluation by the student of his/her performance.

All students complete close to 2,000 hours of patient care experiences and rotate on a regular basis among affiliate hospitals to perfect their patient care and technical skills. A comprehensive competency based clinical system is used to assure clinical proficiency. This multi-faceted program contains orientation, counseling and advisement, evaluation, and actual competency testing components. All students must achieve competency in a specified number of examinations and procedures prior to graduation. Students are permitted to test for competency as their skills and abilities in a given area are demonstrated during any phase of clinical education. Each clinical course is therefore progressively sequenced to provide varied learning experiences for the student in all patient care areas. Student emphasis is on progression from the role of observer to full independence under the close supervision of faculty, clinical instructor and staff professionals.

In addition to rotating among institutions on a semester basis, students also participate in sub-rotations to specific institutions which may perform a particular type of procedure or operate a piece of equipment not generally available. This maximizes each student's total education. In this way, students receive experience with most types and brands of equipment.

DIETETIC TECHNICIAN

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The Dietetic Technician Program has continued to maintain a high quality of success since graduating its first class in 1980. It has received full approval from the American Dietetic Association (ADA) during this period.

Enrollment has been steady; each fall approximately twenty new students are admitted and over half graduate within a two to three year period with an A.A.S. Degree in Food Service Administration. There are more requests for graduates than can be supplied, and approximately 20% of the graduates seek baccalaureate training with a small percent going on for masters level education.

Upon successful completion of the Dietetic Technician Program, the graduates may sit for a national credentialing exam under the auspices of the Commission on Dietetic Registration (CDR) of the ADA. This is relatively new. Only three exams have been offered for Technicians thus far. Our program has averaged an 80% pass rate during this period.

Integral to the program is 450 hours of supervised field experience. This application of knowledge is offered concurrently with the didactic portion of the curriculum and required by the ADA. The curriculum is planned to build upon the success of the student. The supervised practice component of the curriculum allows the student to experience "first hand" the work of the Dietetic Technician. The students are assigned to local hospitals, nursing homes, elementary and high schools, and agencies that work with the developmentally disabled to apply the theories of the classroom. In addition, visits are arranged to health spas and clubs, adult homes, sheltered workshops, dialysis centers, and senior citizen nutrition sites.

Most technician programs rely on the traditional institutional settings. Our innovative approach presents a broad spectrum of learning experiences. The students are also encouraged to give presentations relating to nutrition at public events such as the Fall Harvest Festival, sponsored by the College, and at local libraries. Public speaking and being at ease before a group is an acquired skill. The College gets many requests for speakers with the students being encouraged to volunteer. They receive credit toward their field experience hours and full technical and moral support for the presentation. In this manner we produce a confident and competent practitioner at all levels.

Even if the student is completing his degree part time, course enrollment counseling is planned to meet the needs and abilities of the individual student. The need for remediation is established prior to admittance to the program. Math and reading

competencies are brought up to college level prior to enrollment in Nutrition Care I. To ensure comprehension and to prepare students for the course work that follows, remediation relating to technical reading and computation skills is integral to the laboratory portion of this introductory course.

Each course in the Nutrition Care sequence, of which there are four, is taught sequentially, one building upon the other in terms of concepts and experiential learning.

Supporting courses in the curriculum cover several areas of general education.

The field experience placements are planned to permit the student an opportunity to see the wide range of opportunities that are available in the dietetic profession. Relevance of education to contemporary problems, within the profession, is maintained by an active and involved Advisory Committee. The makeup of this group includes practitioners in all areas of dietetics and food service, representatives from local baccalaureate degree programs, professional association officers, graduates of the program as well as administrators from local health care institutions. There is a designed turnover (average service on the committee is four years) within this group to ensure the broadest possible input. We also want to provide all individuals who wish to contribute their expertise to the College an opportunity to do so.

A formal advisory committee meeting is held annually by the faculty, students, college administration as well as committee members. Many of the special projects, as well as updates in the curriculum, are initiated from members of the Advisory Committee. For instance, many collaborative programs have been developed with the Suffolk County Department of the Aging, Dairy Council of Metropolitan New York and the Dietetic Tech Program.

The clinical instructors for the field experiences component of the program are Registered Dietitians. They bring to the students, as well as to the total program, their current interest, expertise, and a view of the application of theory that sometimes differs from the textbook. There is very little turnover of this faculty. Because they have been with the program for many years, there is continuity in learning. This is stimulating learning and contributes to the success of graduates, many of whom are offered jobs before completion of their degrees.

The program is fully aware of its commitment to servicing the full spectrum of community college students and integrating the curriculum with not only the dietetics profession, but the environment in which the college exists.

The opportunity for each student to explore career possibilities within the framework of an educational program is probably the most unique feature of the Dietetic Technician Program. It is flexible enough to permit student inquiry and experimentation in pursuit of both a career and a college education.

EMERGENCY MEDICAL SERVICES

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In keeping with the College's Statement of Purpose, Darton College provides instructional programs and services to persons within commuting distance of Albany, Georgia for their benefit as well as for the common good of the area. Furthermore, one of the goals of the College is "to provide programs and services indicative of a commitment to the community". The Darton Paramedic Program meets both of these goals.

In the early 1970s the need for prompt medical attention in times of personal, medical and accidental disaster was widely recognized. A decrease in deaths and stabilization of long-term disabilities directly demonstrated the correlation between response time and emergency treatment. Emergency service personnel rapidly replaced untrained transporters, and equipped ambulances replaced other vehicles used to carry the victim to medical personnel.

With acceptance of the benefits derived by having trained basic emergency medical personnel on the scene of an emergency, medical professionals, primarily physicians, envisioned the increased benefits for a community which received emergency medical services.

Basic Emergency Medical Technician (EMT) programs were offered throughout Georgia, usually at the vocational technical school, through the hospital, or perhaps at the local military base. Cardiac Technician (CT) programs, which provided knowledge and skills to enable the ambulance providers to administer advanced life support technique were also being incorporated by the health care community.

Darton College (formerly Albany Junior College) was concerned in the 1970s as it is today with providing those special courses and programs that would benefit the community and meet its needs. Georgia did not have an organized ongoing program for Advanced EMTs. The climate to create and develop a program that would be unique in the thirty-four institutions of the University System of Georgia was accepted by the College and medical personnel of the twenty-seven country area of southwest Georgia.

Darton developed a program in 1979 to educate and train persons as Advanced Emergency Medical Technicians (Paramedics). The program is based upon the fifteen module National Training Course for Paramedics (NCTP). The Paramedic Program is unique in its course scheduling, certificate or degree options, student profiles, and graduate attainments.

To enter the program the applicant must have current certification as a Basic EMT and be employed by an ambulance service. Students enter the program with a wide range of work experiences, background exposures, and age ranges. The prospective student must also demonstrate, via the College Placement Examination, a specified level of competency in English, reading and mathematics. Any deficiency may be overcome by successful completion of developmental studies courses.

Partnerships with student employers have been established and maintained since the inception of the Paramedic Program. Emergency medical services have varied shift schedules for their personnel. Some services require twenty-four hours on, forty-eight hours off; others require twenty-four hours on, seventy-two hours off, making traditional college-level work almost impossible to schedule. With the input and support of the ambulance service directors, Darton created a schedule offering courses during a three and one half day week. This constitutes a true dedication from the student as well as the faculty, employers and co-workers.

In addition to the on-campus instruction, the College extends the campus to two local hospitals. Here students in groups of one or two receive instruction in critical care areas by college faculty, physicians and nurses with specialized expertise. Students receive advanced education with patients and equipment that enhances their didactic, laboratory and background knowledge.

At the completion of the fifty-three quarter-hour certificate program, the graduate is required to pass a state examination for certification as a Paramedic (EMT-A). In the eleven years of the programs existence, the fourteen classes have consistently earned a 100% pass rate on the State Certification Examination offered by the Composite Board of Medical Examiners. Therefore, all 110 graduates are certified to perform advanced life support techniques under medical direction in Georgia.

Additionally, students may elect to pursue an Associate of Science Degree in Emergency Medical Services. The courses required encompass University System core curriculum in English, science, social science, mathematics and physical education. The courses are supportive of the concepts of **Building Communities** by expanding the horizons of the student in writing, social, and historical perspectives.

Graduates of the program continue to demonstrate lifelong learning and attainment. Some are now ambulance service directors; others are pursuing additional allied health avenues (respiratory therapy, nursing) or have obtained baccalaureate degrees. One is currently working in Saudi Arabia, assisting in its development of emergency medical personnel. Many of the graduates are now qualified as instructors in Basic Cardiac Life Support, Advanced Cardiac Life Support, and Basic Trauma Life Support programs. These are nationally-recognized courses taken by paramedics, nurses and physicians.

ENVIRONMENTAL HEALTH TECHNOLOGY

Roane State Community College
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Roane State Community College is located in East Tennessee and its 4200 students come from both rural and urban areas. As is the case with many community colleges, Roane State has a long history of implementing instructional programs based on employer training and retraining needs. However, the Environmental Health Technology Program not only epitomizes industrial collaboration, it also provides the region with virtually unduplicated instruction in the field.

The Associate of Applied Science Degree Program in Environmental Health features separate options in Health Physics, Industrial Hygiene and Waste Management. Health Physics students learn to evaluate health hazards associated with the use of radioactive materials by instruction in the appropriate use of detection and measuring instruments. Proper storage and disposal of radioactive materials are also covered in this option. Students in the Industrial Hygiene option are trained in the anticipation, recognition, evaluation and control of those factors of the work environment that are a threat to worker health, safety, comfort or productivity. Students enrolled in the Waste Management option are trained to apply federal and state regulations and monitoring as a means to manage generated wastes and to safely perform remedial actions at contaminated sites. A required internship in each of the three options gives students practical experience in their respective areas of specialization.

Roane State's proximity to Oak Ridge, site of the 1940's Manhattan Project, with its concentration of nuclear production and research, has shaped the development of instructional programs and offers the College institutional distinction in the training of environmental technicians. Martin Marietta Energy Systems, the primary contractor for Department of Energy Operations in Oak Ridge, operates three large production plants and the Oak Ridge National Laboratory. The Oak Ridge Associated Universities provides training for research personnel and offers assistance to scientific firms throughout the area.

The Environmental Health Technology Program is affiliated with Oak Ridge National Laboratory and Oak Ridge Associated Universities, not only for sponsorship of internships and scholarships, but for the use of laboratory facilities and nationally recognized personnel as adjunct instructors. The concentration of research scientists, equipment and utilization of hazardous materials make this area of the country unmatched for the application of environmental health issues.

The Oak Ridge area has been referred to as the "Wall Street of Waste Management". Not only do newly-generated hazardous, radioactive and mixed wastes require special

management, but the Department of Energy is under a federal mandate to clean up the hundreds of sites contaminated by these same types of waste. Federal and local officials have recognized that the clean-up of all of these sites will require between fifty and one hundred years. Audit teams made up of federal regulators have instructed DOE to proceed rapidly with this clean-up and have also instructed DOE to increase resources to provide greater protection for workers on the premises.

The impact of both of the above factors on employment in the field of environmental health is critical. There are no more than six community colleges in the country that train technicians to handle hazardous materials, and only one other that teaches students how to safely handle hazardous wastes. Implications on the national workforce are astronomical and local projections indicate that 5,000 technicians could be needed in East Tennessee alone. The project is changing the concept of employment, in that Roane State's graduates could spend a working lifetime on one single project; this is diametrically opposed to national trends where workers change jobs on the average of every ten years.

The first option of the program, Health Physics, began in 1985, and has consistently maintained a 100% placement rate; the Industrial Hygiene and Waste Management options will graduate their first class in spring of 1990. Although some of those enrolled have been previously employed in the field and are enrolled to obtain requisite credentials, the majority are pursuing the field of environmental health as a first-time career choice. All of the second-year students have multiple employment offers well before finishing their program, and history has proved that graduates are being employed nationwide.

It is evident that Roane State's associate degree programs cannot provide adequate numbers of skilled technicians to meet area needs; therefore, a contract program has been established to retrain existing nuclear plant personnel at the request of Martin Marietta Energy Systems, Inc. Students in the thirty-three semester hour certificate program attend classes eight hours per day for four months, followed by OJT experiences for an equal length of time. A package of four-five courses in Hazardous Waste Remediation is also available to train operators in the appropriate use of clean-up equipment. Virtually no other college in the country owns the extensive heavy equipment used in training these technicians; the equipment alone has been valued in excess of $2 million.

Further, DOE has designated Roane State as a primary provider of training in environmental health and has given the College $80,000 in seed money to establish a non-credit training center.
The newly-established Waste Management Training Center provides on-site seminars and uses its staff as nationwide consultants in the are of environmental health.

The future for employment and training in this field certainly is positive, although, at times overwhelming for those administering the program. It appears that new demands are created as often as existing needs are filled. Roane State's challenge and ultimate regard are that through collaboration, major environmental problems will be mastered.

MEDICAL LABORATORY TECHNOLOGY

Alamance Community College
P.O. Box 623
Haw River, NC 27258
(919) 578-2002
President - Dr. W. Ronald McCarter
Contact Person - Peggy Simpson

UNIQUE CHARACTERISTICS: For several years Alamance Community College has worked with Roche Biomedical Reference Laboratories, an internationally recognized testing laboratory, to train laboratory personnel. By the mid 1980s Roche was experiencing significant growth and increasing needs for personnel training and/or upgrading, and many courses, both credit and non-credit, were developed and offered. Recognizing the need to better serve students and to fill a training need to both Roche and area health care facilities, ACC sought and was granted permission to offer the Medical Lab Technology curriculum in 1987. First-time students were admitted in the fall of 1988 although selected courses were offered on site at Roche for both new hires and existing laboratory personnel during the interim.

As the curriculum developed, the success of offering courses with Roche became apparent to both the Company and the College. Officials met to discuss the best approach to facilitating the offering of this very expensive curriculum while meeting the needs of Roche and the broader health care industry. Growth in other areas of ACC had placed significant strain on laboratory facilities and funds for equipment and personnel. Yet, there was a significant community need for trained MLTs. As a result of this and subsequent meetings, a unique program was developed with an extensive partnership between the College and Roche.

Under this unusual partnership, Roche provides:

- funds to allow the College to hire a full-time department head.
- company space and equipment for lab classes.
- competitive scholarship funds for entering students.
- additional instructional funds from the Hoffman/LaRoche home office.
- job sharing positions for students who want to work and go to college but cannot handle full-time employment.
- full scholarships beginning in 1990-91 for seniors from area high schools who agree to work for Roche for three years upon program completion.

Alamance Community College provides:

- development of a full curriculum offering with multiple entry points.
- additional instructional personnel and all instructional supplies.
- significant marketing efforts to attract students.
- efforts necessary to secure full accreditation for the program.
- full complement of student services, learning resources and college services.
- limited equipment.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Before the MLT Program was begun, ACC conducted Roche training classes for ten years; 168 students were trained, 80% hired by Roche and 58% retained. The first associate degree class will graduate this year, and area hospitals and Roche are actively competing for graduates. In fact, some students have already opted for full-time employment in the field rather than completing the degree. One student graduated after only one year of full-time study because she transferred in some credits and took some of the early courses taught at Roche. This woman was offered employment at Alamance County Hospital after only two weeks of clinical practice but remained in the program and has worked at the hospital since graduation.

EXTERNAL RECOGNITION: While the program is only a year and a half old, it has already gained a reputation as a top quality program training well qualified technicians.

Support from Roche has grown tremendously over the past two years, and Roche plans to model others training programs after this partnership.

The initial steps of accreditation by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) were approved without limitations, and the accreditation process should be completed this academic year.

Officials at hospitals participating in clinical rotations have commented quite favorably on the preparation and theoretical foundation of students coming into rotation, and graduates are in high demand at the hospitals.

The MLT classes have been running with a full compliment of students, when other, more traditional programs have experienced enrollment declines.

BUILDING COMMUNITIES: ACC's MLT Program addresses a number of recommendations from the AACJC's Commission on the Future of Community Colleges, including recommendations to expand the campus to the workplace, enhance active rather than passive learning, and work with employers to keep the work force up to date and well educated. The two recommendations addressed most directly concern the idea of business and industry partnerships to help underwrite start-up costs of technical programs and the alliance with employers in existing programs at the College.

MEDICAL RADIOGRAPHY

GateWay Community College
108 North 40th Street
Phoenix, AZ 85034
(602) 275-8500
President - Phil D. Randolph
Contact Person - Dr. Robert Huddleston

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: The Medical Radiography Program enrolls thirty-five students per year. The graduates of this program must sit for and successfully pass their national certification examination

sponsored by the American Registry of Radiologic Technologists (ARRT) before they are considered employable. The program has enjoyed a 100% pass-rate on this examination in recent years. Additionally, 100% of our graduates are placed at the end of their training. Local employers have made requests to address our students in the hope that they would seek employment at their facility. Graduates have quickly reached supervisory positions, i.e., advanced imaging modalities, clinical instructors, department managers, and have long been known for their innovation, creativity, and positive sense of direction.

EXTERNAL RECOGNITION:

In 1986 the National Center for Vocational Education at Ohio State University in collaboration with the Arizona State Board of Community Colleges identified the Medical Radiography program at GWCC as an "outstanding High-Tech program" in Arizona.

In 1988 the Committee on Allied Health Education and Accreditation of the American Medical Association awarded full accreditation to the program for the maximum possible length of five years based on a self-study and a site visitation.

In 1988 Health Occupations Education of Arizona gave the program an award for its competency-based curriculum. Changes in the curriculum resulted in allowing the student to graduate from the program at an earlier date.

BUILDING COMMUNITIES: To quote this report, "community should be defined not only as a region to be served, but also as a climate to be created". This program emulates the second (Partnerships for Learning) and fourth (The Classroom as Community) recommendations listed. Specifically, this program has demonstrated that its instructors can communicate effectively, use educational technology, show a commitment to the community college philosophy and the students it serves, as well as demonstrate qualities of leadership. The strength of this program is in its faculty and its advisory committee. The program provides a climate in the classroom where "both intellectual and social relationships are strengthened and where teachers and students are active partners in the learning process". The students are indeed "active, not passive learners". The high academic standards for which this program is known contributes greatly to the spirit of community that exists in the classroom. The net result is a mutual respect between teacher and student. Our students enter the state professional association essay/exhibit competition and consistently receive top honors and awards. That same organization has awarded the state's coveted "Outstanding Student" award to one of our students more times than any other program in the state. Our graduates then have gone on to continue their membership in the professional organization and even become officers and leaders.

UNIQUE CHARACTERISTICS:

This program is able to identify several unique qualities:

A curriculum that allows returnees who are registered technologists and have been out of the workforce for several years to obtain the knowledge and experience needed to re-enter the workforce as competent practitioners.

A system of clinical linkages that requires the clinical education centers to be an integral part of the education process. Regular meetings with and visits to the

centers have forged a relationship that results in quality clinical educational experience for our students.

A workshop for the clinical instructors is held every year on topics that deal with the operational vagaries and procedures that are associated with a program of this sort.

Advanced Imaging Modality Training that will allow our graduates to acquire advanced skills. A one-of-a-kind arrangement has been developed in the medical area with 50% of the cost of our new Nuclear Medicine Program being assumed by the local hospitals. This will allow a low-enrollment, high-cost program to provide highly specialized personnel to hospitals that desperately need them.

OCCUPATIONAL THERAPY TECHNOLOGY

Nashville State Technical Institute
120 White Bridge Road
Nashville, TN 37209
(615) 353-3382
President - Dr. Richard M. Turner, III
Contact Person - Anne K. Brown

Nashville Tech's Occupational Therapy Technology (OTT) Program is an accredited two-year associate degree program designed to provide education and technical training for Occupational Therapy Assistants. Consistent with the college's mission, the program serves a population diverse in age, race, ethnic background and level of education and life experience. At the present time, the program's student enrollment consists of 24% minority, 60% over the age of twenty-five and 6% handicapped. Nashville Tech takes pride in these graduates, more than 95% of whom are successfully employed in hospitals, clinics, nursing homes, schools, chronic disease centers and institutions serving the handicapped, elderly, mentally retarded and other specialty groups.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Several important outcome measures demonstrate the successes of OTT students. First, the program has been successful in retaining students by offering a number of special activities over the years. Of the entering 1987 class 76% graduated in 1989. A mentoring program gives each student one-on-one advising by a faculty person throughout the two-year program; orientation activities each fall bring first-year students together with faculty and with second-year OTT students; and a student buddy is assigned to assist each beginning student. During fieldwork experiences, the department head and faculty visit every student personally on the clinical site at least four times to help with problems or concerns and to provide professional support. More recently, program faculty have developed a course to help students completing required remedial studies courses to make the transition to college-level OTT courses.

The Occupational Therapy Club, which maintains 100% membership among students, encourages students to become involved in social, civic and professional activities

which build leadership skills and instill a sense of responsibility to the program and the profession. Fund raising activities sponsor club members' participation in state and national meetings and bring speakers to the campus.

A second indicator of student success the employment rate of OTT graduates. The faculty's continuous interaction with clinical sites and professionals in the occupational therapy field keeps the department abreast of current openings. The employment rate for graduates in occupational therapy jobs from 1987 through 1989 was 95%.

An employer survey provides additional evidence of the program's success. Following graduation and initial employment, a questionnaire measures employer satisfaction with the knowledge and skills of OTT students. These responses identify strengths and weaknesses of program outcomes as indicated by student performance on the job. Overall, surveys indicate that graduates demonstrate a strong foundation of knowledge and skills appropriate for their profession.

EXTERNAL RECOGNITION: OTT students and faculty have been recognized nationally for their accomplishments. OTT students have received a variety of awards including "Outstanding COTA" by the state professional organization in 1989, the "Student Membership Award" from the American Occupational Therapy Association (AOTA) in 1985, and a student nomination for secretary of the national student association of AOTA in 1989. At the national level, the program department head has served on the Evaluators Roster of Accreditation since 1988. She was selected as faculty for AOTA's continuing education workshop in 1986 and served as chairperson of AOTA's OTA Program Directors Commission from 1985-1988. Another faculty member served as past president of the state association, Tennessee Occupational Therapy Association (TOTA).

BUILDING COMMUNITIES: The Nashville Tech OTT Program emphasizes recommendations of **Building Communities** concerning the importance of oral and written communication and appreciation of lifelong learning. The Commission report recommends that all college students should receive instruction beyond the basic writing course. In the OTT Program, every course requires both oral and written presentations by students. To assure students' appreciation of lifelong learning, the OTT Program requires all students, as part of the OT Theory and Practice course, to attend a professional continuing education activity such as a workshop or professional meeting, and to prepare a written report. The Program sends information every year to alumni about state and regional professional education meetings.

Building Communities asserts strongly that teaching in which students are active rather than passive learners is the hallmark of good instruction, and the classroom must provide an environment of cooperative teaching and learning. Nashville Tech's Occupational Therapy Program excels in this goal. In therapeutic classes for example, students must demonstrate skills in working with patients by role playing both the therapist and the patient. Each student is assigned a disability with which he or she must shop, prepare food and serve and eat a meal attended by faculty, staff and students.

Building Communities urges colleges to introduce students to the institution's traditions through orientation and other activities. All students entering the OTT Program interview with a panel of occupational therapists and faculty. The challenge and expectations of college work as well as the professional field of occupational therapy are explored in detail. A comprehensive orientation session also introduces students to the College.

UNIQUE CHARACTERISTICS: The OTT Program has built a collaborative relationship with the allied health community which is both extensive and unique. The continued interaction between the OTT Program and occupational therapy professionals makes a strong contribution to the program's success. The professional occupational therapy community supports the Nashville Tech Program through participation in an Education/Advisory Council and through an active, extensive professional network developed by OTT faculty. Council members serve on orientation panels, advise about curriculum, and provide clinical fieldwork supervision for OTT students. Through these contacts, the program has access to occupational therapists who frequently serve as guest lecturers for classes and as resource persons. These professionals provide opportunities which enable all prospective OTT students to observe in clinical settings.

The Nashville Tech OTT Program reciprocates with service to the allied health community. Faculty conduct workshops on current therapeutic concepts and techniques and work as consultants in the clinics to assist with patient treatment. OTT students plan and provide group activities and parties for patients in hospitals, adult daycare centers and special schools.

OPTOMETRIC/OPHTHALMIC TECHNOLOGY

Owens Technical College
P.O. Box 10,000
Toledo, OH 43699
(419) 666-0580
President - Daniel H. Brown
Contact Person - Barbara Hetrick

The Optometric/Ophthalmic Technology Program utilizes a comprehensive curriculum to develop technical skills through didactic, college laboratory, and clinical experiences. The students gain clinical experience through rotations at different optometric and ophthalmological practices. In order to assure that all students receive equivalent clinical experiences, each student rotates through at least six different clinical sites. These rotations provide the students with exposure to the various modalities of practice in addition to providing experiences in the many technical aspects of the vision care field.

The technology faculty are highly qualified with a broad base of knowledge in both theory and clinical expertise. The faculty consists of a full-time chairman who is a

registered optometric technician and a licensed dispensing optician, and eight part-time faculty which include six optometrists and two graduate optometric technicians. The part-time faculty are currently practicing in the field and bring the expertise of private practice to the program. The faculty hold membership and offices in many professional organizations. Students complete faculty evaluations at the end of each semester and have consistently rated the Optometric/Ophthalmic faculty as good to excellent. A rating scale of one to four is used with one being the highest rating attainable. Composite ratings of all program faculty ranged from 1.28 to 1.90 for Spring 1989.

Entrance into the Optometric/Ophthalmic Technology Program is limited to twenty students and is by selective admissions. Requirements include high school graduation or its equivalent, ACT scores and the completion of high school algebra and chemistry with a grade of "C" or better. Optometric/Ophthalmic students must obtain a technical grade point average of 2.0 or better by the end of the first year and must maintain at least a 2.0 technical grade point average throughout the remainder of the program. All students entering the Optometric/Ophthalmic Program participate in the Success Seminar Program which includes assessment, orientation, and advising of new students. This process is used to support a student's transition into the College and is administered by the Counseling Department.

Overall, students are successful in the Optometric/Ophthalmic Program. They expand their knowledge by involvement in outside volunteer activities in conjunction with the Sight Center, Head Start, and the Children's Resource Center and provide services including vision and glaucoma screenings and participation at health fairs.

While mandatory credentials are not a requirement for employment in the Optometric/Ophthalmic allied health fields, over 90% of the graduates choose to sit for credentialing exams. In a recent survey, 32% stated that they are currently certified or licensed in a minimum of two areas; and an additional 16% indicated they were currently in the process of meeting the requirements for their second credential.

The American Optometric Association provides institutional results for the Optometric Technician Registry Examination and Owens' graduates have scored consistently well. Since 1983 Owens has attained a mean score above the national mean for the exam. The average passing rate for Owens' graduates is 96% compared to the national average passing rate of 78%. Since 1985 three graduates have received the highest score in the nation on the examination.

Graduates of the Optometric/Ophthalmic Technology Program obtain positions of employment in the field. Students and graduates are provided with placement services through the Placement and Testing Office. Graduates are surveyed each year by the Director of Placement and according to published results for the year 1984 through 1988, 100% of the graduates seeking employment were employed in the vision care field. Graduates have been pleased with their education at Owens Technical College as is documented on completed survey information in the Placement Office.

Graduates have indicated that advancement in the field is taking place with 17% being employed in the position of office manager, clinical staff supervisor, surgical coordinator, regional manager, or owner.

The employers of the Optometric/Ophthalmic Technology graduates are periodically surveyed regarding the graduates capabilities of meeting the expectations of the job. In a recent survey over 70% of those employers rated Owens graduates as good to very good in all aspects of their education.

The program is fully accredited by the Council on Optometric Education of the American Optometric Association. An advisory committee consisting of optometrists, ophthalmologists, licensed opticians, certified ophthalmic technicians, registered optometric technicians and alumni meet twice a year to provide input and direction for the program in regards to curriculum, equipment, and technology changes. The committee supports the education that the students receive as most advisory committee members are employers of graduates. As employers, these people are in an excellent position to evaluate the program and to provide advice for changes and advancements in the technology.

PHARMACY TECHNICIAN

Midlands Technical College
P.O. Box 2408
Columbia, SC 29202
(803) 738-1400
President - Dr. James L. Hudgins
Contact Person - Don Ballington

Midlands Technical College offers a unique, successful and widely recognized one year program for Pharmacy Technician instruction. Student successes, external recognition, committed community-based programming, and several unique features clearly demonstrate the accomplishments of the Pharmacy Technician Program.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Pharmacy Technician is a one year certificate-level program requiring a high level of general education (48%) in such areas as college math, chemistry, anatomy and physiology, English, psychology and ethics. The program also requires sophisticated technical and pharmaceutical knowledge. The program has operated for ten years with an average starting class of sixteen with 75% retention to graduation. In ten years, 99% of all graduates were successfully placed within the local community hospitals. A recent community survey of employers illustrates the program success further -- 85% believed our program graduates (compared to others in the field) stayed on the job longer with a lower turnover rate; there was an 85% improvement in drug knowledge of graduates; the graduates were perceived as 84% more adaptable, and 100% of the employers stated overall satisfaction with the program (source: **Hospital Pharmacy**, Volume 24, June 89).

EXTERNAL RECOGNITION: The Pharmacy Technician Program at Midlands was one of the first community college level programs in the nation to be accredited by the American Society of Hospital Pharmacists (ASHP). The program has been featured in four national journal articles in the **Journal of Pharmacy Technology** and **Hospital Pharmacy**. Former officers of the Association of Pharmacy Technicians (APT) have singled out the Midlands program as a national model because of its balanced curriculum, successful placement, and employer-college alliance. Both APT and ASHP frequently recommend the program to others seeking to start a similar program. In 1989, the program director, Don Ballington, organized and hosted the first ever international conference for pharmacy technician educators. Plans are now underway for the second international conference, and the American Council on Pharmaceutical Education has recognized the conference for continuing education credit for pharmacists.

BUILDING COMMUNITIES: This program addresses many recommendations in **Building Communities**. The program director, Don Ballington, actively engages in classroom research to improve teaching/learning, and output of this research recently was published in a national journal -- **Hospital Pharmacy**. By hosting the first ever Pharmacy Technician Educators' Conference, the program established a national network. The program, even though at the one year level, requires assessment and placement of all students and requires balanced general education and occupational skills. The program enjoys top quality faculty in Don Ballington who has a masters degree, eighteen years of experience, and is a frequent speaker and author.

UNIQUE CHARACTERISTICS: Midlands' Pharmacy Technician Program is one of only seventy-five programs nationwide. It is one of only twenty-five programs accredited by ASHP, and the program is one of only ten accredited programs housed in community colleges. The program features a unique alliance with employers involving clinical and didactic instruction. Direction is provided by an advising committee made up of pharmacists from local hospitals, community pharmacies, industry, the South Carolina Board of Pharmacy, and technicians.

PHYSICAL THERAPIST ASSISTANT

Blackhawk Technical College
P.O. Box 5009
Janesville, WI 53547
(608) 756-4121
President - James Catania
Contact Person - Ilene Larson

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Blackhawk Technical College responded to the medical community's request for well trained technicians to extend physical therapy services in a time of professional shortage. Impetus was also provided by the need to prepare people locally for secure, good paying jobs within the community . The Physical Therapist Assistant Program was

made accessible to the under employed, older adult and minority population by offering the program in an evening format. This furthered the opportunity for both full and part-time enrollment. Its first class graduated in May 1989 with ten of twelve students completing the program. In the first class, the ages ranged from twenty to forty-seven with an average age of thirty-three and included one black female, one white male and eight white females.

The placement rate for the first class was 100%. A very high satisfaction existed with the clinical performance of students as reported by affiliating preceptors as well as employers and graduates.

EXTERNAL RECOGNITION: The Commission for Accreditation in Physical Therapy Education labeled the program "Exemplary" and also "Best" of developing programs reviewed. No weakness or recommendations were given following the comprehensive review process.

BUILDING COMMUNITIES: Language skills are assessed prior to entrance using a standardized test. (Test of Adult Basic Education.) Remedial courses through the "Learning Lab" are offered in a variety of formats and times. Tutoring is available with no cost to the students. Competence in written communication skills is integrated and evaluated throughout the curriculum in technical courses as well as the general education component. Basic principles of communication, as well as behavioral sciences, are specifically applied in such courses as "Life Span Applications" and "Physical Therapist Assistant IV" which teach application of learning theory and behavioral mechanisms to physical therapy situations.

Continuing education through teleconferences via a satellite downlink provides ongoing skill development of program graduates as well as others in the related rehabilitation professions. Resources of the library and media center are made available to area physical therapy departments by granting borrowing privileges upon request.

Because the clinical component requires direct involvement by community physical therapy departments, the program builds an effective network of cooperation and collaboration beyond the campus. Affiliating agreements have been signed with forty-five separate agencies. A five hour inservice program is held annually for site preceptors which has enjoyed an attendance rate of over 90% of affiliating agencies.

UNIQUE CHARACTERISTICS: The program recognizes the growing need for physical therapy services for the aging population. Course content includes specific competencies related to the geriatric client. The Physical Therapist Assistant Program Director has been appointed to the geriatric section of the American Physical Therapy Association which is addressing this curriculum issue. The clinical courses also reflect this expanding community need with approximately half of the placements in geriatric settings.

Blackhawk Technical College collaborated with a local hospital to utilize its physical therapy department after hours for a skills laboratory. This insures up to date, well

maintained equipment for instruction that would otherwise be cost prohibitive in both fiscal and facility resources. It also encourages a close relationship with the clinical community.

The Physical Therapist Assistant faculty presented a special retraining program for 1299 General Motors (Janesville Plant) employees. In groups of approximately twenty-five, employees attended four hour sessions on "Save Your Back". The program was rated above average by participants and highly praised by their supervisors.

COOPERATIVE RADIOGRAPHY

Southwest Virginia Community College/
Virginia Highlands Community College
P.O. Box SVCC
Richlands, VA 24641
(703) 964-2555
President - Dr. Charles King
Contact Person - Ron Proffitt

This unique Radiography Program is a cooperative arrangement between Southwest Virginia Community College in Richlands, Virginia and Virginia Highlands Community College in Abingdon, Virginia. The Cooperative Radiography Program serves six rural counties and the twin city of Bristol, Tennessee/Virginia. Because of the rural location many students travel over mountain terrain for up to two hours to attend the Radiography Program.

The Radiography Program has contracts with four community hospitals, one private hospital, and one regional medical center for students to receive clinical internships. During the two year program students spend an average of 1640 hours completing clinical rotations.

In **Building Communities**, recommendation number three page fifteen states: "the community college should offer first-rate technical education and career related programs to prepare students for working in the information age." The Cooperative Radiography Program prepares students in the use of computers and computer information systems in radiology departments. The Cooperative Program also utilizes the only digital system available in a Virginia Community College to prepare its students.

Also, recommendation one on page twenty-one states: "we urge that schools and community colleges join in "2+2" or "2+1" arrangements in which technical study programs begun in high school are completed in a community college either in a certificate or associate degree program." The Cooperative Radiography Program has been funded by a grant and has begun work on a "2+2" arrangement.

Recommendations on pages forty-seven and forty-eight address the assessment evaluation of program effectiveness. The Cooperative Program in Radiography has for a number of years conducted follow-up employer/employee surveys on its graduates as well as surveys on its transfer students. In addition, the Cooperative Program has conducted a capstone course at the end of the program to evaluate and assess student outcomes.

The Radiography Program has demonstrated success through its follow-up assessment of radiography graduates. Follow-up data demonstrates a 100% placement of its graduates and a high employer/graduate satisfaction rating. In addition, program graduates take the National Board Examination given by the American Registry of Radiologic Technologists to become certified as radiographers. Graduates of the Cooperative Radiography Program have consistently averaged five points or better above the national average and 99% of the program graduates have passed the National Board Examination. The Radiography Program maintains an alumni record of graduates and has held ten and fifteen year reunions as part of its follow-up studies.

The Radiography Program is accredited by the Joint Review Committee on Education in Radiography and by CAHEA, the accrediting arm of the American Medical Association. The Cooperative Radiography Program completed a self-study in fall 1988 and received full accreditation from the Joint Review Committee on Education in Radiography.

RADIOGRAPHY

Labette Community College
200 South 14
Parsons, KS 67357
(316) 421-6700
President - Dr. Joseph Roberts
Contact Person - Paul William Bober

The general purpose of the Associate Degree Program is to prepare men and women to become qualified radiographers and to help meet the radiology needs of the state of Kansas whether it be in hospitals, clinics, physicians' offices, or comparable health agencies.

The Radiography Program believes that health is the ability to adjust effectively to the physiological and psychological stress of life and to achieve such adjustments with minimum strain. An individual's state of health moves upon a continuum from healthiness to illness and each individual has the right to optimum health care. With this in mind, the Radiography Program believes that radiography consists of direct assistance in diagnosis and care of individuals who are faced with health care problems common to the society which it serves. The Associate Degree Radiography Program's function is to provide for selected students guided experiences in study and

clinical participation which will prepare the graduates to be eligible to take the American Registry of Radiologic Technologists.

The program allows students to:
Function as an entry level radiographer.
Be self-directive in gaining proficiency from experience; knowing when to act and to seek guidance.

Labette radiography students have competed at the state, national, and international level(s) in paper, exhibit and film competition over the years. The Radiography Program has received numerous internal and external awards with 1989 being the best external recognition given to the Radiography Program: Kansas Society of Radiologic Technology (KSRT) Convention Award of Merit: Student(s) - First Place - Best Contrast Media Radiograph: Student Ray Bowl - First Place.

Assume self-direction for continued intellectual and professional growth.

Twenty graduates of the Radiography Program have gone on to a specialty school which includes Ultrasound, Radiation Therapy, Special Procedures and Nuclear Medicine. Numerous other graduates have sought training in Computed Tomography, Magnetic Resonance Imaging and Mammography.

Utilize opportunities for both personal and professional growth development.

Labette's Radiography Program and its faculty believe that learning is the interaction between the learner and his/her environment leading to changes or modifications of behavior that are relatively permanent. Learning takes place most effectively when the individual student is respected and individual differences are recognized. The learning environment involves:

The common efforts of both faculty and students towards the educational objectives of the College and the Radiography Program; Encouragement towards self-actualization and self-direction; Selected learning experiences which are meaningful and directed towards attainable behavioral objectives and goals.

Labette's Radiography Program is unique because the program's belief is that education is the process whereby knowledge is acquired and the ability to translate this knowledge into meaningful activity is developed for the Radiographer. This provides an opportunity for the student to:

Acquire knowledge of radiology through guided study and various experiences with role models; Transfer knowledge into technical activity in a situation similar to that in which the graduate is expected to function; Accept responsibility for continuing personal growth through experience; Identify the interdependency of radiology with other health care teams; Recognize the role of the radiographer in a changing society.

Labette Community College's Radiography Program is finding new ways to organize and deliver diagnostic imaging education in the areas of Computed Tomography, Magnetic Resonance Imaging, Special Procedures and Ultrasound; to promote access efficiencies, and adaptability to change. Labette Community College's Radiography

Program has learned that change can provide for an opportunity to increase its recognition of student needs and the needs of a democratic society for our educated citizenry.

RADIOLOGY TECHNOLOGY

Muskingham Area Technical College
1555 Newark Road
Zanesville, OH 43701
(614) 454-2501
President - Dr. Lynn H. Willett
Contact Person - Mitchell Stillberger

"With a high degree of initiative they have continually accepted any responsibility given with an eagerness and cooperative spirit second to none. Their general knowledge of radiology and superior clinical skills are qualities that would make any instructional program proud." These comments appeared on an annual follow-up survey of employers of graduates from MATC's Radiology Technology Program.

The two-year RT program offered by MATC prepares students for professional careers as radiographers. The program emerged from a demonstrated need for trained technicians in local medical centers. By providing pertinent learning experiences, MATC's competency-based program enables students to demonstrate mastery in the didactic and clinical aspects of the field. Besides preparing technically for employment, students have been encouraged to cultivate personal integrity and professionalism.

One indication of the RT students' commitment to excellence is that six students (12%) were Presidential Scholars, which requires a 3.8 grade point average. Since the award was established in 1983, only 7% of the total MATC graduates have attained this honor.

To become registered, RT students must take the American Registry of Radiologic Technologists exam. In 1989, MATC's RT program maintained a 100% passing rate, when the national average was 68.3%. During the past seven years, MATC has averaged a 97.7% passing rate.

A job placement rate of over 90% of the radiologic graduates in their technical field provides further evidence of success. In the past two years, over 25% of the RT graduates have applied and been accepted into the highly competitive, limited openings for specialized radiologic training, including magnetic resonance imaging (MRI), ultrasound, and computerized tomography (CT). In addition, three recent graduates are working towards bachelor's degrees.

Upon completion of the requirements, the student earns an Associate of Applied Science Degree in Radiologic Technology and is eligible for the National Examination

of the American Registry of Radiologic Technologists. To keep practitioners up-to-date on technological concepts and to refresh theoretical concepts, continuing education courses are offered for registered radiologic technologists.
The Radiology Program is accredited by the Joint Review Commission on Education on Radiologic Technology (JRCERT). The site visit in April 1989 earned the program reaccreditation for twenty-one students in each year of the program. Another external assessment used by the program to judge its curriculum is the Radiologic Technology Advisory Committee. Performance objectives for all didactic and clinical courses have undergone formal review by the committee. These objectives are under constant scrutiny for validity and applicability.

Quality of instruction is evidenced by the overall standards of the College. Of the entire forty-one MATC teaching faculty, 85% have masters' or higher degrees; 19% of the faculty have specialized certificates or licenses, such as a Certified Engineering Technician, and other scholastic accomplishments.

The Radiology Program consists of two full-time faculty members and three full-time clinical instructors who are based at the affiliating hospitals. Although employed by the hospital, the clinical instructors are supervised by the radiology faculty. The clinical instructors are experienced radiographers and exceed the requirements as outlined in the Essentials for Accreditation by the JRCERT. Instructor/student ratios are maintained at 1:7 for labs.

MATC has received external recognition through the RT faculty. Mitchell Stillberger, assistant professor and program coordinator of Radiologic Technology, is active in both the regional and state professional associations and currently serves as first vice president for the Ohio Society of Radiologic Technologists. Assistant Professor Jeff Rowe has eleven-years teaching experience, six-years supervisory experience, and five-years student advisory experience. He is active in the Ohio Society of Radiologic Technologists, and has recently written for Radiologic Technology. Rowe has published two computer-assisted instruction programs: "Basic X-ray Circuitry," (1988) and "Fundamentals of Magnetic Resonance Imaging" (1989).

The learning process is enhanced at each of the clinically-affiliated hospitals, because of the quality of equipment. All three radiology departments have been built since 1980, and each installed the most advanced and up-to-date technological equipment available, including CT, ultrasound, and MRI. Good Samaritan Medical Center also has a radiation therapy unity. All three centers are accredited by the Joint Commission on Accreditation of Hospitals.

The program conducts an intensive follow-up survey of employers and graduates each year, to better evaluate and to revise the didactic and clinical components of the curriculum. In the 1988 graduate follow-up survey, administered six months after graduation, the overall average, on a scale of 1-5 with 5 the highest, was 3.70 for usefulness of specific courses in preparing students for the field. The graduates gave the overall RT program a 4.0 on a 5 point scale. The 1988 employer survey of radiology graduates, on a scale of 1-5, with 5 the highest value, averages 3.98 for ten areas, including technical performance such as positioning and communication skills,

and personal characteristics such as professionalism and enthusiasm. When asked to rate the overall performance of MATC graduates on the job, employers' mean response was 4.14 for satisfaction with job skills. Joe McKinley, chief technologist for the University Hospital at The Ohio State University, stated: "Graduates from MATC fit easily into the mainstream of technologists working in a large acute care setting. They don't require additional training to be at speed with the technologists currently working here."

RESPIRATORY THERAPY

Monroe County Community College
1555 South Raisinville Road
Monroe, MI 48161
(313) 242-7300
President - Gerald D. Welch
Contact Person - Bonnie Boggs-Clothier

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: One hundred percent placement of graduates since program inception. Graduation passrates on national credentialing exams are twenty to forty-five percentage points higher than national averages. Twelve graduates sat for the most recent exams with 100% passing (national passrate of 56%). Student and graduate surveys show consistent ratings of the program as excellent and recommendations of the program to others. Employer surveys consistently rate our graduates better than other schools' in affective behaviors (communications, work ethic, etc.). A number of graduates now occupy positions of authority in local institutions. Early graduates have now begun pursuing degrees beyond the AAS. Retention of MCCC grads in the RT field has been exceptionally high. Our students have received one or more state society RT scholarships for each of the last six years, the only program to do so. A 1988 student received a selectively awarded national scholarship (one minority student/year). An inordinately large number of RT students are recipients of college maintained scholarships each year.

EXTERNAL RECOGNITION: Comments made during the first program accreditation (3/84): "We have never seen a program so mature on a first visit." "The computerized system for tracking students in clinical education should be presented to the national membership." Comments during re-accreditation (9/89): "One of the finest programs I have ever seen." "Clinical education system should be presented to the national membership." "We have repeatedly heard from hospitals that (MCCC) graduates are given preferential treatment when it comes to hiring." "Don't change anything." Comments by site visitor of national repute and with over fifteen years program evaluation experience. No weaknesses cited and the maximum accreditation of five years granted in both cases. Three times MCCC has produced the top student team in the annual state "Trivia Bowl" competition. Canadian students routinely apply to the program due to word-of-mouth advertisement among Windsor students. Written commendations have been received from local educators and the Red Cross chapter for various community services provided by faculty and students.

BULDING COMMUNITIES: The AACJC recommendation best addressed is, "Insist that good teaching is the hallmark of the community college movement, with students encouraged to be active, cooperative learners." This can be taken in two parts: A. good teaching and B. encouraging students to be active, cooperative learners.

A. Good teaching practices: We are competency based, criterion referenced program with program knowledge/skill requirements integrated between classroom, lab, and clinics from program beginning to end. Examples of faculty activities which contribute to good teaching include: distribution of detailed course outlines (100-200 pages per) to assist students with lecture activities; administration of course and program comprehensive exams; development in-house of all lab activity materials based on available equipment and student needs; test construction, item analysis, exam reviews, and active promotion of "test taking skills" to prepare students for credentialing exams; holding regular program-wide faculty meetings to assure parallelism at various teaching sites (i.e. hospital clinical agencies); promoting cooperation and interdependence between faculty; modifying course content in response to student feedback; use of standardized instructional and evaluation instruments, developed through faculty-student cooperation, in our diverse clinical agencies to promote teaching consistency; use of contract learning for regularly required "special" projects; and maintaining small class sizes (lecture class maximum is twenty, lab class max is ten, and clinic class max is five).

B. Encouraging students to be active, cooperative learners: The program's philosophy statement, issued in 1981, contains the pledge that our program faculty will strive to establish an active learning environment. Active or participative learning techniques employed within the program include: promotion of regular study groups which attack material by producing "thought" questions (not recall); extensive use in lecture of Socratic method; labs based on activity centers which promote small group interaction; promotion of student mentors; use of "special projects," community service activities selected by students and often done in a group; sponsorship of group attendance to professional conferences and seminars; course required student-led presentations of patient cases; and participation in MCCC's "Writing Across the Curriculum" program.

UNIQUE CHARACTERISTICS: A very high degree of computerization of clinical education management has been established. The system used has been developed totally in-house. Data collection and evaluation tools have been developed for student and instructor ease of use and to function smoothly with computer evaluation and reporting processes. Computerization has been integrated with the functions of tracking student clinical productivity and hospital productivity so that student weaknesses can be rapidly detected and matched with a specific hospital's strengths in the same are. The computer is used to quantify quality of student clinical performance. Computer processed evaluations of clinical instructors and affiliate sites are returned to the instructors to provide feedback useful in achieving consistency in clinical instruction. Computer processing of student assessments of the program and of self-achievement provide valuable data for program modification and improvement.

RESPIRATORY THERAPY

Vincennes University
1002 North First Street
Vincennes, IN 47591
(812) 885-4421
President - Dr. Phillip M. Summers
Contact Person - Everett T. Wood

The Respiratory Therapy Associate Degree Program has been in existence since 1974, graduated fourteen classes, with all graduates receiving job offers months prior to graduation.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Program outcomes and student success are extremely important to the Respiratory Therapy Program. We have devised several methods for evaluating outcomes and student success. Evaluation tools to ensure that the goals of the program are being met include formative unit examinations, comprehensive final examinations, summative assessment examinations, National Board Examinations, graduate surveys, employer surveys, competency check-offs, and clinical evaluations.

In addition to the students' performance on the National Board for Respiratory Care self-assessment and credentialing examinations, follow-up is further undertaken in the form of satisfaction surveys which are sent both to the student and employer within three months after graduation, and one year after graduation. The placement office at the University also surveys the student shortly after graduation. All of this information is reviewed by both the faculty and the advisory committee, and changes in the program are developed as a result.

The program has achieved 100% placement since its inception in 1974. Over 60% of our graduates have gone on to positions of authority and leadership at their place of employment. One hundred percent of the graduates from the last four years have passed their entry level examination and have scored far in excess of the national average.

EXTERNAL RECOGNITION: The Respiratory Therapy Program received the Post Secondary Vocational Educational Program Award for Excellence from the Indiana Commission on Vocational and Technical Education in 1990. This award recognizes that the program provides a skilled work force to meet current and future labor market requirements throughout Indiana and the United States. The program directly involves the communities of interest for program design, resource utilization and outcome identification. The external recognition that the program has received, along with the outcomes achieved by the graduates, truly demonstrate a commitment to excellence.

The above mentioned excellence would not be possible without an outstanding faculty. Our faculty are recognized as leaders throughout the state of Indiana and nationally. Richard H. Stein, MD, our medical director, is presently serving as President for the

American Society of Anesthesiologists. Thomas Konkle, RRT, director of clinical education, is a past president of the Indiana Society for Respiratory Care, and is presently serving on many state and national committees for respiratory care. Everett T. Wood, RRT, Program Chairman, has contributed to several textbooks and has received numerous honors.

BUILDING COMMUNITIES: The program has developed an Alliance with Employers throughout the state of Indiana through clinical affiliations. This allows employers to provide input to the program, allowing it to provide not only skilled workers but life long learners. The advisory committee which is very active meets with the communities of interest involved to provide input into the decision making for training our students and keeping them up to the standards required by their respective agencies. These exchanges between employers, graduates, students and educators have given the program a partnership for continued success in educating our students.

UNIQUE CHARACTERISTICS: The program has written terminal objectives that the graduate must meet in order to complete his or her education. The student is provided with a set of objectives and a handout for each lecture in each course. In this way, each student is assured of receiving the information required to reach the terminal objectives and knows exactly what will be expected of him or her. In order to insure that the student is competent in performing the procedures associated with respiratory care, a clinical proficiency check-off procedure is employed. This procedure has three phases which test the student's competency. Each clinical and laboratory procedure is placed in the computer using a program specially designed by the faculty. The faculty and students know exactly which check-offs remain, the number and date of the completed check-offs.

Probably, the most unique aspect of the program's design is the long term clinical semester. Because Vincennes University is located in a rural setting, and because the population of the county in which we are located is relatively small, the local hospital which serves as our primary affiliate has limited numbers of critically ill patients in their intensive care unit. They also do not have certain specialty areas represented on the medical staff. This has caused us to design the program in such a way that the student must spend nine weeks in residence at a major medical center in a metropolitan area. We currently use affiliates throughout Indiana. We are constantly being asked by larger hospitals in and around Indiana to affiliate with them. This arrangement has been identified by the accreditation site visitors as a major strength of the program. We are the only respiratory care program in the state which uses such an arrangement.

The unique contribution of the faculty members to the program are many. They maintain extremely high standards for themselves and their students. They work hard to insure that the students have the appropriate materials in order to keep current in a discipline which is rapidly changing. The dedication of the faculty is evidenced by their having evening review sessions and clinical simulation review sessions which are over and above their assigned duties.

ARTS AND SCIENCES

CHILD DEVELOPMENT

Eastfield College
3737 Motley Drive
Mesquite, TX 75150
(214) 324-7156
President - Dan Sundermann
Contact Person - Pat Kennedy

Eastfield College Child Development Program offers students an opportunity to earn an associate degree and/or four special topic certificates which include Administration, CDA Training, Infant-Toddler and the Special Child. Our College and the Child Development Program have a commitment to children and families. Through child development courses, the program is able to provide the training to meet standards of quality child care. The program is well respected throughout the state of Texas; we receive many requests for information concerning course competencies. The program also has numerous visitors each year to observe our model child development laboratory school, which complements and strengthens the Child Development Associate Degree Program.

The Child Development Program has several unique characteristics. The most important characteristic is the fact that the program takes courses "to the people." We offer courses off-site both day and night. The program plans courses to meet needs of students, both academically and geographically. These courses have been offered off campus for twenty years and have proven to be very successful. Second, we have collaborated with an agency within the city to offer specially designed courses to promote the National Academy of Early Childhood Program Accreditation, which the city of Dallas has set as a standard of quality for child care centers.

Third, we have linked with a Dallas Magnet High School to give dual credit to senior students in the child care clusters. The students spend two hours each day in college child development classes and the remainder of the day in high school. They receive both college and high school credits at the conclusion of the year. Fourth, we have developed and implemented an articulation program with local high schools who offer child development programs; to give credit for content completed in high school that parallels our courses. This articulation program has been well received by the community. Fifth, we have applied to be a training component for the new Child Development Associate Credential Model which will be implemented in 1991. This program would offer another unique way for our program to serve students as well as promote our interest in children and families.

The Child Development Program at Eastfield College plays a major role in building a better community. The institution has a twenty-year history in providing accessible

instruction throughout the county to raise the quality of child care. Eastfield's Child Development Program models exemplary instruction for adults as it provides quality child care for children in its laboratory schools.

COMMERCIAL ART

Community College of Denver
1111 West Colfax Avenue, Box 850
Denver, CO 80204
(303) 556-2473
President - Dr. Byron McClenney
Contact Person - Beth Garbutt

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Initial and continued success of students who have completed the Commercial Art Program indicate the strength of the program. Graduates of the Commercial Art Program work in the local graphic design field at every level. Some of the top positions held by former students are: Art Director for Brock Cook, Art Director for Finnion McClean, Art Director for Channel 4, Art Director for Lance Jackson, and Art Director for the Denver magazine.

Two former students manage the computer graphics at the Colorado Production Company. Both of the computer graphic artists at Channel 4 are Commercial Art graduates. **The Denver Post** Creative Service department has two former students working in a six person department. Former students work for local award-winning design firms such as Lee Reedy Design, Elaine Shiramizu Design and the Winter Group. Former students also run their own successful businesses such as the Joy Company.

The publication department at Metropolitan State College has hired several COA Students. Colorado University Publications Office hired a COA student who competed against 250 other applicants for his position. The Auraria publications department has hired one of our students as well.

Students from this program also hold jobs in production in various businesses around the city. One of our graduates is the production manager at Coors Brewery Company.

A good program should not only train students for entry level positions in the local market but give them the training and the skills to move up in the future. We have been interested in training students for entry level and for a real future in the field as the continued success of our graduates clearly shows.

EXTERNAL RECOGNITION:
Another resource of program effectiveness is student performance in commercial competition. Commercial Art students have competed extremely well over the years in local, regional and national competition. Following is a list of such competitions and performance of our students:

Contest winners:

U.S. SMALL BUSINESS NATIONAL POSTER CONTEST
2nd place winner
PEOPLE'S FAIR POSTER CONTEST
1st place 1983, 1986, 1989, 2nd place 1989, Peoples Choice
ANNUAL NISSAN STUDENT ADVERTISING CONTEST: We have won honorable mention three different years. We have been the only community college commercial art program which placed and the competition was from every major college and art school in the United States.
RTD MINORITY BUSINESS ENTERPRISE POSTER CONTEST FOR 1989
COA Students won first, second and third places.
COORS RAMSES II POSTER CONTEST - $1500 scholarship
1st place winner
DENVER ART DIRECTOR'S STUDENT SHOW: Over the past twenty years, more than fifty Commercial Art students have won gold medals, silver medals and placed in the annual show.
LOG CONTEST WINNERS - COLORADO BALLET, AMEND, JEFFERSON COUNTY CHILDREN'S LIBRARY

Several former students have gone on to teach graphic design at Metropolitan State College.
Several students have also returned to teach graphic design at Community College of Denver after years of experience in the professional community.

BUILDING COMMUNITIES: Along with teaching excellence, the Commercial Art Program's real strengths are in its close working relationship with the professional community and its long record of producing graduates ready to assume an artistic role in that community. The program exceeds even the expectations of the "Alliance with Employers" section of **Building Communities**. Specifically, that section calls for

> ...exchanges between educators and employees...to provide continuing education opportunities for faculty (and) a long-range partnership plan with strong mutual benefits...to sustain that relationship.

The Commercial Art Program has an advisory board made up of fourteen local art directors, designers and production artists. Our advisory board works with our second year students early in the students' final semester to look at their work and give them advice. The board members work on a one-to-one basis with the students. At the end of the semester, they return to interview the students and again review their portfolios and their presentations. The board critiques students' interview skills and they also participate in a final critique of portfolios.

UNIQUE CHARACTERISTICS: In addition to taking an active role in program matters, Advisory Board members provide rigorous evaluation of graduating students' portfolios, review curriculum for currency, provide internships for students, arrange upgrade training for faculty and provide vital listings with artists and designers throughout the country. In the Spring, 1990 semester, for example, the Commercial Art Program offered a course in illustration, team-taught by five professional

illustrators, three of whom are Advisory Board members. Students and faculty alike are exposed to current trends in technical illustrations from five different perspectives.

As **Building Communities** also suggests, the Commercial Art Program demonstrates the essence of "...an alliance with employers...carefully integrated into college programs and interests."

COMMERCIAL ART TECHNOLOGY

Sinclair Community College
444 West Third Street
Dayton, OH 45402
(513) 226-2544
President - David H. Ponitz
Contact Person - Charlene McNamara

The Commercial Art Technology Program at Sinclair is experiencing exponential growth in its Computer Art Emphasis. Students within this emphasis use sophisticated Pansophic computer graphic workstations to learn two-dimensional animation, three-dimensional animation, business graphics, medical and scientific graphics as well as desktop publishing. The program was awarded Ohio's most prestigious educational award in 1986. The Computer Art Program is a regional training facility for Pansophic Corporation and is receiving national attention as a model computer graphics training program. The Computer Art Emphasis has grown so rapidly and graduates are in such demand that it will become a separate program during Fall Quarter, 1990.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: During the past two years, annual enrollments in computer art courses have increased by 1.93 times with Fall Quarter enrollments up by a factor of 2.5. Recent graduates from the Commercial Art Technology with the Computer Art Emphasis Program have had remarkable success in obtaining jobs. Sinclair graduates in Commercial Art typically seek jobs only within the College service area (one Ohio county). Yet graduates of the Computer Art emphasis are in such demand that they are currently employed in eight other states (Arizona, California, Florida, Hawaii, Indiana, Illinois, Kentucky and New York) with one graduate working in Spain. Clearly, this attests to the quality education provided in this unique program. Computer Art Emphasis graduates are employed in large companies (NCR, Monarch Marking, Nationwide Insurance) the U.S. Air Force, television stations and local commercial art design and advertising agencies.

EXTERNAL RECOGNITION: In 1986 the Ohio Board of Regents presented the department with its Program Excellence Award and a check for $151,000. This is the most prestigious award bestowed to any educational program in Ohio public colleges and universities. These seed funds have blossomed into a laboratory valued in excess of $1 million. This sophisticated laboratory has become a model visited by colleges

and universities throughout the eastern United States as others develop similar programs. In addition, the department has negotiated a student internship program with the Mayo Clinic in Rochester, Minnesota. Sinclair Computer Art students emphasizing medical graphics will be able to complete their degrees at one of the world's exemplary hospital complexes--the Mayo Clinic.

Pansophic Corporation, manufacturer of the workstations used in the Sinclair Computer Art Laboratory, has formed a partnership with the College. As a Pansophic regional training site, Sinclair will train employees of companies which purchase new and upgraded Pansophic equipment.

Assistant Professor Ms. Kate Crawford, the driving force behind the program, is in demand at international and national conferences. She has been asked to give presentations at the International Conference on Technology and Education (Brussels, Belgium) the 10th Annual Florida Educational Technology Conference (Daytona Beach, Florida). In addition, Ms. Crawford has been asked to serve on the Editorial Board for the **American Journal of Computer Art in Education**. She was the recipient of the 1988 National Computer Graphics Association Educator's Scholarship Award for Outstanding Research in Computer Graphics Education. Ms. Crawford has published in **Classroom Computer Learning** and is consultant to Morehead State University, the University of Cincinnati, the University of Dayton, Central State University, Winston-Salem Technical College, Lakeland Community College and the Dayton Public Schools.

In addition to the partnership with the Mayo Clinic and the Pansophic Corporation, the Computer Art Program will be an integral part of the Printing Productivity Institute in Dayton. This is a cooperative effort between the College, Pansophic, and regional printing corporations. (Dayton is the nation's fifth largest concentration of printing and graphic arts companies.) Currently employed graphic designers will attend Sinclair for retraining in the use of modern computer graphic workstations to improve company productivity. The retraining will involve twenty credit and noncredit courses. An additional printing laboratory is under development to support this effort.

BUILDING COMMUNITIES: The Computer Art Program is a textbook example of an alliance or partnership with employers. Clearly, the partnerships with the Mayo Clinic, Pansophic Corporation and the Printing Productivity Institute are key examples. In addition, the program is an exemplary example of the use of technology in the classroom. The laboratory is truly state-of-the-art with Pansophic workstations networked to two video image capture cameras, a color printer, laser printer, film recorder and 3/4" video editing tape deck.

UNIQUE CHARACTERISTICS: Students have been given the opportunity to work with faculty on two medical projects. The first involves the development of a computer graphics training tape on heart anomalies for Sinclair Nursing Department. The second is an imaging project of a sectionalized cadaver for the American Sectional Anatomy Consortium (a consortium of two-year, four-year colleges and teaching hospitals.)

COMMERCIAL MUSIC

Long Beach City College
4901 East Carson Street
Long Beach, CA 90808
(213) 420-4111
President - Dr. Beverly L. O'Neill
Contact Person - Dr. George Shaw

IN 1978 Dr. George Shaw joined the faculty of Long Beach City College and created, from three jazz classes, a multi-faceted Professional Music Program, teaching a music technology which equips students with the necessary skills and knowledge to survive in the music world of today. From the start it has been the goal of this program to change with shifting demographics and music technology. It is also the intent of the faculty to recognize each student as a unique individual with goals and needs tied to the real and immediate demands of the commercial music world. The faculty realize that this world is driven by extremely rapid rates of change, the increasing importance of technology in creating music, and the necessity for individuals to get "hands-on" access to equipment in order to understand its use.

An educational innovator, Shaw has been instrumental in developing an exceptional program of music education at Long Beach City College which eschews traditional methods, and gives students the opportunity to function as working professional musicians. The three original jazz classes have expanded to the present thirty-six classes and the program grants an Associate of Arts Degree as well as Certificates in Commercial Music with emphasis in the following areas: Recording Engineering, Songwriting, Copyist, Instrumental, Record Producer, Vocal, and Arranger.

Since 1978, three more full-time instructors, in addition to Dr. Shaw, have been added to the commercial faculty specializing in recording arts/engineering, vocal jazz performance, and commercial theory/computer controlled synthesis. An additional staff of eight part-time instructors, a recording specialist and two lab technicians staff the program. Because of the wide range of students' abilities, the program employs a modular approach utilizing hypercard and other auto-tutorial programs allowing students to progress at their own rate. Student follow-ups find that the students are being hired in all of the various aspects of the music business. Thirty-six percent of the students find full time employment, 40% are employed at least three nights or days a week in the music business, and 24% work occasionally in some aspect of the music business.

The first industry Advisory Council met to guide the program in 1980 and since that time, industry representatives have continued to meet regularly with the commercial music faculty to evaluate and assess the program. In the Fall of 1986, the LBCC Professional Music Program was officially approved by the Chancellor's office, state of California, as a Vocational Program.

From 1980 to 1985 grants were received from the National Endowment for the Arts "Visiting Jazz Artists" program and such renowned artists as David Sanborn, Michael Sembello, Lionel Hampton, Dizzy Gillespie, Ronnie Laws and Joe Pass have been guest artists and featured soloists with the jazz band and discussed their careers and the music business with students. To keep abreast of the shifting emphasis of the music industry and to be current with the impact of the changing music technology, a new direction was given to the program in 1985. At that time a grant was received entitled "Revitalizing Academic Commercial Music Programs Through The Use of Computer Technology." With this grant a studio complex was established and the facility was opened six days a week to give students "hands-on" access to the equipment. In 1988 a 24-Track Studio was added to the existing studios composed of 16-Track, 8-Track, two 4-Track and a 20 station Computer Controlled Synthesis Laboratory with 4-Track Studio Stations. The entire facility is now open to students seven days a week.

The program has joined in partnerships with industry to give students job opportunities during and after completion of their studies. Kawai America Corporation, Peavey Electronics, Opcode Systems, and Apple Computers are among the major corporations that have formed alliances with Long Beach City College's Music/Radio/Television Department and made major contributions to the development of the new facility. Through an ingenious arrangement that ties the College in with the community, Dr. Shaw teaches a MIDI Systems class at an off campus site, Long Beach's Whittaker Music Store, which contains almost every MIDI device imaginable.

Dr. Shaw was recognized for this "cutting-edge" program by Apple Corporation in 1988. On the basis of his use of the Macintosh computer in teaching, he was selected as one of six educators in the United States to participate in a national Apple educational advertisement. He was recognized in 1989 by the Chancellor of the California Community Colleges, Dr. Mertes for his alliances with industry, and is currently working on a proposal regarding technology applications in music education. He was appointed Coordinator of the Professional Music Program in 1990. He is currently involved in the development of a national education and industry alliance program with the Kawai America Corporation and continues to do national clinics and publish articles on the subject of computer controlled synthesis. In addition, he is developing a hypercard information processing system for the commercial music program and is a clinician in this area.

The Music Department joined Radio/Television in 1989 and became the Music/Radio/Television Department. All three areas are housed in the same building which will be remodeled and enlarged in 1990-91. When completed, the new studio complex, with its state-of-the art technology, will enable students to learn the necessary skills to enter or re-enter the music/radio/television business equipped with current knowledge and able to demonstrate the ability to succeed in the music/radio/television businesses.

CRIMINAL JUSTICE

Eastern Wyoming College
3200 West "C"
Torrington, WY 82240
(307) 532-7111
President - Guido Smith
Contact Person - Glenn Schleve

After enjoying increases in enrollment and graduates throughout the seventies, the Criminal Justice Program in 1980 fell to a total enrollment of seven full-time students. Rather than phase out the program, the administration decided to continue it for two more years with a new instructor. Enrollment for the 1988-89 school year reached thirty-four, making the Criminal Justice Program the third largest at Eastern Wyoming College. There were several reasons for this success.

Personal contact was made by both the instructor and students with interested high school seniors. While working very closely with the Director of Admissions, and upon receiving names of students, interested Criminal Justice majors would write to them and give them a personal idea of what the Criminal Justice Program could offer. To answer any questions that the student might have, the instructor made follow-up phone calls.

One of the main objectives of both the students and the instructors was to become a member of the American Criminal Justice Association. This helped with recruitment and retention of students. The American Criminal Justice Association, which has its Grand Chapter, Lambda Alpha Epsilon, located in Sacramento, California, granted Eastern Wyoming College its charter, Beta Upsilon Delta, in 1987. Since that time Beta Epsilon Delta has won three regional competitions, finished second in 1988 in the Nationals and finished first in the Nationals in 1989. The unique makeup of the American Criminal Justice Association allows for members to include professionals from the criminal justice area to compete with the students.

The students and Eastern Wyoming College have benefitted from this close contact with local police agencies. We have been able to utilize these agencies as contacts for internships, potential employers, and to employ personnel as adjunct faculty, including the city attorney. Over half of the municipal police department are graduates of EWC, and several police officers are working towards their degrees. The sheriff's office has one graduate and several deputies working on their degree programs.

In 1988 Eastern Wyoming college entered into an agreement with the Wyoming Law Enforcement Academy in Douglas, Wyoming. With this agreement, peace officers attending classes at the Academy, can earn college credits. This includes the ten-week basic recruit class and any advanced class that is offered. During 1989 over 800 hours were awarded, generating over seventy full-time students. This will be, for the

majority of students, the first college credits they have earned. Through off-campus classes, it will be possible for these students to continue both their college and police careers.

Graduates from Eastern Wyoming College have enjoyed success in several areas including the National Park Service, numerous city and county law enforcement agencies, and state and county correctional facilities. Those who transferred to a four-year college have found that all classes transferred, and that they were on the same level as students who had attended the same college for two previous years.

The Criminal Justice Program was originally introduced for the benefit of the local law enforcement agencies, with the first students being law enforcement officers and local high school students. It has grown over the last seven years to include students from all of the mid-western states and from as far as Georgia, Alaska, and the New England states.

Recent recruiting reflects the needs in the law enforcement community for Spanish speaking graduates, women, and minorities. Course selection is closely watched and is changed when it will make the graduate more marketable and facilitate transfer to a four-year school.

CRIMINAL JUSTICE

Garden City Community College
801 Campus Drive
Garden City, KS 67846
(316) 276-7611
President - Dr. James Tangemen
Contact Person - Dennis C. Elam

Graduates of the Garden City Community College Criminal Justice Program are currently employed at every level of law enforcement including national, state and local agencies. Agencies include: Drug Enforcement Administration, U.S Department of Corrections, Internal Revenue Service, state police, state investigative agencies, police department, sheriffs' departments and other local law enforcement positions. Former graduates provide one of the best recruiting tools for new students.

The innovative approaches, including collaborative learning techniques to law enforcement training, are nationally recognized and draw students from all over the country. Inquiries have also been from foreign countries.

The program was initiated in 1971 with a total of ten courses or a total of twenty-nine credit hours. There were approximately fourteen majors. The program had one full-time instructor. A second instructor was added in 1972. Enrollment increased quickly due to recruitment efforts of the instructors and others. By 1975, the Criminal Justice

Program had outgrown the facilities and the program was moved to allow for lab space and increased office space.

In 1986, the program again moved to larger facilities with expanded criminalistic lab facilities and classrooms. Currently the department has two full-time instructors, several part-time instructors and sixty full-time Criminal Justice majors.

The study of criminal law, procedure, criminology, constitutional rights, public relations, crime prevention, security administration, police administration, corrections, and juvenile justice are emphasized. Classes are also offered in investigation, report writing skills and computers.

Feedback from former students and four-year colleges has been positive in that the students from the GCCC Criminal Justice Program have been well prepared for advanced study, as well as, for law enforcement training academies. Some of the students will utilize training obtained at GCCC as in-service officers for up to a year before attending a law enforcement training center.

The theory background combined with the hands-on approach have produced quality law enforcement officers who are now serving the public in leadership and public service positions in many local, state, and federal criminal justice agencies.

The uniqueness of the education and training in this program becomes obvious for those student studying criminal justice. Although theory and academic learning is very much a part of the program, it is the philosophy of the department that for learning to be successful and applicable to the needs of the workplace, collaborative learning must take place.

Students in the Criminal Investigation class, for instance, will be taught proper interview techniques. They are then assigned to actually conduct interviews designed to strengthen interviewing skills. Reports and proper follow-up action are also required. Mock crime scenes are developed (with mock witnesses, evidence, etc.), and the students work as a team with other classmates to properly manage, investigate, preserve evidence and conduct follow-up investigation. The completion of proper paperwork is a part of this experience.

This type of preparation culminates in "Operation Black and White" where the knowledge and skills gained in the first three semesters is put to practical use. The student will have the opportunity to effectively integrate education and training, theory and experience, and the abstract with the practical.

When the student has met all requirements outlined in the Criminal Justice Department degree programs and are a graduating sophomore, the student may be admitted to the "Operation Black and White Program". The purpose of the program is to provide the student with the knowledge and competence required to achieve on a competitive basis entrance to the law enforcement career field at various levels of government.

The student, wearing distinctive uniforms and utilizing patrol cars owned by the College, is assigned to respond to various simulated police operations. The operations include various phases of police administration, such as record keeping, patrol, traffic, criminal investigation, accident investigation, obtaining and issuing arrest and search warrants, testifying in court, and the handling of juvenile offenders. Each car is fully police-equipped including two-way radios. The base station is located at the College and operates on a frequency assigned by the FCC. In addition to the "Black and White" patrol cars, the college also owns two police-equipped motorcycles for use in the "Operation Black and White Program".

The "Operation Black and White" at Garden City Community College is the first of its kind in the nation. The program has received state and national publicity for its innovative and effective training.

To keep pace with the rapidly increasing utilization of technology in the criminal justice field, the department is currently incorporating the use of computers in many of the classes. The Criminalistic Lab has also been expanded to provide the student with practical knowledge of the testing and procedures available from this field of study.

The Criminal Justice Advisory Council meets monthly during the school year since 1982 and provides valuable input into program development, curriculum, internship opportunities, student activities and assistance, scholarship fund drives, guest instruction, competition preparation and sponsorship, and much more.

The Criminal Justice Department sponsors, co-sponsors,or instructs an average of fifteen-twenty advanced law enforcement seminars per year. The seminars range from three hours to forty hours in length. The benefits include providing a part of the forty hours required of law enforcement officers per year to maintain certification. This also provides an opportunity for students to mingle with in-service officers and potential future employers.

Students plan, organize, and participate in a wide range of activities including training sessions and practicums in "how to run a meeting", "how to work with committees", "how to make joint decisions", and "how to effectively motivate others".

The department sponsors competition opportunities at the local, state, regional, and national levels. Majors compete against other criminal justice majors from other colleges across the state and the country. Competition includes comprehensive exams in Criminal Law, Constitutional Law, Corrections, Juvenile Justice and practical application team events in Crime Scene Investigation, Traffic Accident Investigation, Firearms, and Physical Agility. The Garden City Community College Criminal Justice Advisory Council was selected as the Kansas Local Outstanding Advisory Council for 1989-90.

CRIMINAL JUSTICE

Mount Wachusett Community College
444 Green street
Gardner, MA 01440
(508) 632-6600
President - Dr. Daniel M. Asquino
Contact Person - Frank A. DeSorbo

The Criminal Justice Program at Mount Wachusett Community College has grown tremendously in both reputation and number of students since its inception in 1971. The outside program evaluator, Lawrence Bassi, former Chairman of the Professional Standards Committee and President of the American Academy of Criminal Justice Sciences, rated Mount Wachusett Community College's Criminal Justice Program as "being in the top 10% in the Country and within the top 5% in New England." Graduates have been very successful in finding employment in a wide variety of positions in the criminal justice field. We are also proud of the leadership these students have taken in their field. For example, twelve of our graduates are police chiefs, five are attorneys, two are captains in the State Police, and one is the Superintendent of Corrections at Plymouth, Massachusetts. Many of our north central area police officers and corrections officers have received their degrees at Mount Wachusett Community College.
Much of the Criminal Justice Program's reputation and success reflects the dedication of its excellent faculty. They have been innovative in their teaching methods; they have created strong partnerships with the professional community; and they have created a strong scholar/mentor relationship with their students-all three of which are recommendations in **Building Communities**.

For example, Professor Robert Willhauck, Chairman of the Criminal Justice Department, is highly respected throughout Massachusetts as a professional in the field of law enforcement and criminal investigations. In a recent sabbatical leave, he served as a criminalist for Boston's Bureau of Investigation and Technical Services. He gained much respect for his work and gained much knowledge and technical information to share with his students in the classroom and in the criminal justice lab that has been established at the College. He has received the Distinguished Teaching Award six times in the eighteen years he has been a professor at Mount Wachusett Community College. He is very heavily involved with various criminal justice professional organizations which help connect Mount Wachusett and its students with the criminal justice community. This allows Professor Willhauck to create some innovative learning skills for his students. For example, students who take his Criminal Justice Administration course actually do a management study of a local police department. These reports are highly respected by the agencies being evaluated and have gained a tremendous amount of respectability under his supervision. Professor Willhauck also creates realistic crime scenes where students learn to effectively and professionally investigate crime cases.

Professor Bonnie Toothaker, who is a graduate of Mount Wachusett Community College's Criminal Justice Program, continued her education at Northeastern University and Fitchburg State College where she received a Master's Degree, and is dedicated to maintaining the integrity and excellence of the program. Her educational background along with her skills and talents complement Professor Willhauck's expertise. She, too, has won her students' respectability for excellence by being the recipient of the Distinguished Teaching Award. Recently, concerned with the lower reading scores of some of the freshman class, she decided to teach a special section of Introduction to Criminal Justice to ensure the success of these "at-risk" students. She increased the number of class sessions each week, coordinated her efforts with the College Learning Center, engendered more discussion among students, and formed a unique partnership with these students. Currently, she is studying interactive video so that she can use this new technique to enhance learning in her classroom process. She is also involved in coordination of the Criminal Justice Internship Program, where students go for "on-the-job" experience that will help them in their careers. This program has been very successful. Students often receive invitations of employment through this quality program.

Both Professors Toothaker and Willhauck are also very involved with professional associations and are members of the Massachusetts Academy of Criminal Justice Sciences, serving or having served as officers of the organization. Both are consultants to the Massachusetts Criminal Justice Training Council. Professor Willhauck also serves as an assessor for the Law Enforcement Commission on accreditation and on the Advisory Board of the Massachusetts Department of Corrections. In 1988, Professor Toothaker was nominated for the Manuel Carballo Governor's Award for Excellence in Public Service and received the Commonwealth of Massachusetts Citation for Outstanding Performance.

Recently, the Massachusetts Criminal Justice Training Council chose Mount Wachusett Community College as a site for one of their academies. This is the first of these academies to be located in a college. Mount Wachusett was chosen because of the partnership that the College has had with the Training Council over the years, because of the excellent respectability and exemplary reputation that the Mount Wachusett Community College Criminal Justice Program has throughout the Commonwealth.

EARLY CHILDHOOD CAREER OPPORTUNITIES

Oakton Community College
1600 East Golf Road
Des Plains, IL 60016
(708) 635-1894
President - Dr. Thomas TenHoeve
Contact Person - Sheila Kerwin

The Early Childhood Career Opportunities (ECCO) Program at Oakton Community College is designed to prepare limited English proficient Hispanic, Indian, and

Pakistani adults for employment in the expanding field of Early Childhood Education. Funded in part by the U.S. Department of Education Office of Vocational and Adult Education Bilingual Vocational Training Program, the program comprises a twenty-one-week intensive training program for twenty students. Students learn both the theory and practice needed to work effectively with young children and their families, as well as improve their English speaking and writing skills. At the conclusion of the program students are awarded an eighteen credit hour certificate in Early Childhood Development; the certificate is applicable toward an associate degree. Project staff include the director, English as a Second Language (ESL) manager, full and part-time faculty members who teach the early childhood courses, bilingual tutors who work with students individually and in groups, and staff at cooperating child care centers.

The ECCO Program began in 1989 and has completed one twenty-one-week cycle. Students served in the first cycle came from eleven different countries. We believe ECCO is exemplary for a number of reasons. These include:
DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Participants raised their Basic English Skills Test scores an average of eight points; five students placed into college-level English; eight graduates have already obtained employment in the field; the average salary prior to participating in the program was $4.30/hour, and after the program is $6.31/hour; six graduates are continuing their studies at Oakton.

EXTERNAL RECOGNITION: The University of Illinois-Urbana has recognized the program by sending a VESL research team to observe and will use ECCO as a model; a bilingual consultant from the Illinois State Board of Education has chosen to work with participants to provide further information on academic and career options; requests for information have come from numerous other colleges across the nation; seven community agencies are actively recruiting students; childcare agencies seek graduates as employees; ten childcare centers have participated as practicum sites, and as a result, several have employed graduates.

BUILDING COMMUNITIES: The ECCO Program addresses several **Building Communities** recommendations. Through close ties with community agencies that serve Hispanic, Indian, and Pakistani clients and with employers who advise the project director and provide on-site training experiences for students, partnerships beyond the College are developed. Through instructional techniques that incorporate collaborative learning and mentoring as well as lecture and discussion, a sense of community within the classroom is developed. Through serving several ethnic student populations, the program directly addresses the recommendation to build community through student diversity. Finally, through its emphasis on building English language skills, the program builds community through the curriculum.

UNIQUE CHARACTERISTICS: The ECCO Program is unique in a variety of ways. The core trait of the program is collaboration - among students, faculty and staff, employers, and community agencies. ECCO serves a special student population. The program incorporates and blends ESL training with the mainstream early childhood development certificate courses. It fosters strong links between the College and community agencies and employers. Faculty and staff provide a learning environment in which students learn about American childrearing and family customs

and examine similarities and differences among their own cultures. Active learning and participation from students, including field trips, role play, group projects/presentations, are emphasized. ECCO fosters a spirit of community among students so they assist and care for each other.

The ECCO Program reaffirms the equality of opportunity and access afforded by community colleges. The program emphasizes English language proficiency and academic/vocational preparation. Characterized by a supportive environment for participants, ECCO encourages students to move into the mainstream of American life and empowers women from target ethnic groups, while at the same time honoring cultural differences.

FIRST NATIONS SOCIAL SERVICES ADMINISTRATORS' PROGRAM

Loyalist College of Applied Arts & Technology
P.O. Box 4200
Belleville, Ontario K8N 5B9
(613) 969-1913
President - Douglas Auld
Contact Person - Gerry Colford

This program was transferred from Loyalist College, re-designed and is delivered by First Nations Technical Institute to a hard-to-serve audience. Participants work as Welfare Administrators on their First Nation Territories (formerly called Reserves). The Territories are spread over the province of Ontario with most being small isolated communities in the northern part of the province. Cree and Ojibway are the predominant heritage of the participants. The need for refined training of these workers was recognized by the Department of Indian and Northern Affairs Canada in the spring of 1985. The Loyalist/FNTI proposal for the delivery of a college diploma program was chosen from among sixteen submissions and the program began in 1986. The third intake began in March of 1990.

Indicators of the success of the program are:

- a low attrition rate in the order of 15% (the typical attrition rate for college programs in Ontario is over 35%);
- the funding agencies continue to support additional intakes;
- the ongoing evaluations from the learners themselves;
- the demand for expansion into other training areas.

Historically, native citizens have not had an easy time at any level of our mainstream educational system. Culture and language differences and inappropriate instructional methods are the most obvious reasons for their difficulties in a variety of post-secondary programs. However, this program is successful in meeting the professional/educational needs of the participants.

There are three four-month semesters per year; two courses are offered each semester, for a total of eighteen courses. One course per semester is delivered in an intensive week-long workshop format at a central location, usually a hotel. Courses have been offered in Sault Ste. Marie, Thunder Bay, Toronto, Dryden, Fort Frances and Tyendinaga. The other courses are mainly completed at home. Extensive use is made of telephone contacts, learning partners and work-site visits from a support worker. Extensive use is also made of computers, fax and any other information technology available.

The process used in delivering the program fosters the formation of a learning community through the continuous use of adult learning principles. Participants are constantly encouraged to play an active role in the planning and evaluation of every aspect of the program. Their ideas and experiences are seen as valued resources by program staff, and it is intended that learning outcomes will have meaning for them both personally and professionally. A supportive learning climate, nurtured by staff, is intended to enhance the self esteem of participants and encourage interdependence.

Another important and unique feature of this program is the development of an individual educational plan for each participant based on the concept of Prior Learning Assessment (PLA). This involves the granting of credits and exemptions to participants for college-level learning that has occurred outside of formal educational institutions. Each administrator is required to complete a written portfolio which deals with individual attitudes, values, skills and experiences in relation to philosophy of helping, leadership, programming, and administration. Participants are also required to identify any other related learning experiences as well as providing the names of a least four references.

Preparation of the portfolio is a rigorous and demanding task which participants are given up to one year to complete. Encouragement and support is provided by program staff and peers for the portfolio and all other program requirements. Several participants, for whom English is a second language, chose to begin the portfolio process using audio-tapes which were eventually transcribed into an appropriate typewritten format. The completed document is assessed against program requirements to determine exemptions and equivalences. The final step in the process involves an interview between each candidate and program faculty culminating in the development of an individualized educational plan, outlining remaining steps to graduation.

FUNERAL SERVICE EDUCATION

Fayetteville Technical Community College
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Fayetteville, NC 28303-0236
(919) 323-1961
President - R. Craig Allen
Contact Person - Michael Landon

In a profession that is faced with a major labor shortage, the Funeral Service Department at Fayetteville Technical Community College in Fayetteville, North Carolina is continually addressing this major issue as well as additional concerns.

Fayetteville Tech's Funeral Service Education Program is unique to both North and South Carolina. The program was instituted in 1974 with the first graduating class in 1976. Through the years the program has experienced continued growth and has made deliberate attempts to maintain a consistency as well developing creativity in the program to meet the needs of the profession. Due in part to the labor shortage, FTCC graduates enjoy a 99% placement rate with many students having several offers upon graduation. The success rate of the National Board Examination administered by the Conference Funeral Service Exam Board is approximately 85%, while the national average is 80%.

FTCC enjoys the support and recognition from four major organizations in North Carolina. They are the N.C. State Board of Mortuary Science, N.C. Funeral Directors Association, N.C. Funeral Directors and Mortuary Association, and the N.C. Commission of Anatomy, all of which are intricately involved with the College and the Funeral Service Education Department. The FTCC faculty are frequent contributors of articles to the trade publications, and the department is actively involved with the American Board of Funeral Service Education that is the governing body to educational institutions of mortuary science.

FTCC makes every attempt to address many of the issues stated in **Building Communities**. The department has instituted a night tracking program that enables adults who have family and economic commitments to pursue this profession on a part-time basis. In addition, a consortium agreement was reached in the fall of 1989 to offer the N.C. Funeral Directors Certification Program as a satellite program at Forsyth Technical Community College in Winston Salem, N.C. This program was instituted as a result of the profession's desire to make the educational opportunity geographically more available to others interested in becoming funeral directors.

HUMAN SERVICES

Genesee Community College
One College Road
Batavia, NY 14020
(716) 343-0055
President - Dr. Stuart Steiner
Contact Person - Dr. Donald Green

An integral component of the Human Services Program at Genesee Community College is the foundation introductory course and the subsequent three semesters of internship experiences. A student must be able to not only apply knowledge from all the courses they have taken but also to demonstrate dependable and ethical work behavior. Certainly, an indicator of students' success is their internship grade, the assessment of their potential as a human services worker. By their final internship, the majority (94% in 1989) of students achieve "A" or "B" evaluation (66% received an "A"). In addition, several are offered positions at their internship site which, of course, is one of the best criterion to evaluate student success.

Although human services students may be unsure of career goals when entering the program, they typically have more defined career and educational plans as they graduate due to their internship and course experiences. For those desiring employment, the majority (85% in 1988) are offered human services positions. Many graduates aspire to transfer to baccalaureate level programs and are readily accepted by area social work or related programs (25% of 1988 graduates transferred). Graduate surveys are compiled each year to monitor the progress of program graduates in securing employment and/or transfer to four-year programs. Consistently, graduates who are employed or enrolled in human services related areas, indicate on the survey that their Genesee Community College human services education was good preparation for their present employment or baccalaureate education (100% in 1989).

Certainly, an important part of any academic program is the instructors. Their dedication, motivation and caring for students are critical to the student success and outcomes discussed in the previous section. Both full-time human services professors at Genesee Community College are recipients of the SUNY Chancellor's Award for Excellence in Teaching.

Another indicator of program recognition is the numerous requests to the instructors from area human services agencies for assistance in planning in-service training for agency staff and presentations in workshops.

The program instructors have designed some unique and innovative instructional approaches, as well as new courses and other educational curricula to meet societal and student interests/needs. They frequently are requested to serve as consultants to human services agencies on client, staff and training issues, and to other New York State community college professionals on new course and curricula ideas.

Other examples of external program recognition include: acceptable review of alcohol and drug courses by New York State Federation of Alcoholism Counselors; awarding of employee training contracts by the New York State Department of Social Services for Genesee, Livingston, Orleans and Wyoming Counties; New York State Education Department approval of new curricula--Gerontology Certificate and Teacher Education Transfer Program.

Considering the aging of America's population and a growing number of adults who currently are students or are interested in furthering their education, the Human Services Program has developed several instructional techniques, innovative in-service training, and credit courses/programs to meet their needs. Although these approaches enhance any student's learning, they are critical to meeting the special needs of adults and the disadvantaged. Individual attention to student needs and close monitoring of student progress are achieved through several methods: individual and/or small group student-instructor meetings, course policies to facilitate student course and internship attendance, tutoring of individual students, regular instructor contacts with intern supervisors, individual internship contracts with agencies, and video, audio taped and live student helping skills demonstrations for individual critiquing of student progress. When the instructor ascertains that a student need is not being met, a special contract is designed with the student that may involve tutoring, counseling, expanded educational experiences, or additional intern attendance policies.

Course assignments are also designed to address individual student needs and interests. Examples include: student-client case planning, developing a creative project for their internship agency, interviews/visits with a variety of area agencies, and student self assessment papers.

Linkages between the Human Services Program and area human services agencies have resulted in mutual sharing of expertise. The program has assisted in the development of numerous in-service training programs and from this maintains an up-to-date understanding of societal and agency trends and needs. Innovations which have resulted from this include: a Gerontology Certificate, child care topics courses, alcohol and drug use and abuse courses, New York State Department of Social Services Employee Training Contracts, Teacher Education Transfer Program, Family Crisis Intervention course, Sign Language courses, and numerous in-service seminars with human services agencies. Some of these educational offerings are truly unique as they were first developed in New York State.

INTERPRETER TRAINING

Waubonsee Community College
Route 47 at Harter Road
Sugar Grove, IL 60554
(708) 466-4811
President - Dr. John J. Swalec
Contact Person - Dr. Lynn Clark, Donna Vodar

Waubonsee Community College provides extensive services to the deaf and hearing impaired community through its comprehensive Interpreter Training Program. Started in 1976 to meet the growing need to provide well qualified interpreters for Waubonsee's large hearing impaired program, the Interpreter Training Program was the first such program in Illinois and still remains the largest program of this type in the state.

The Waubonsee Community College Interpreter Program includes both an AAS Degree and a forty-six semester hour certificate designed to train students to become interpreters for deaf and hearing impaired persons. Classroom instruction, laboratory experiences (augmented by video taping of student performance), and a practicum are employed in providing learning activities for the students.

Graduates are employed by educational institutions, social service agencies, religious organizations, business and industry and the court system to provide interpreting service for the deaf. Seventy percent of program graduates secure employment in the field; and 30% become self-employed freelance interpreters. The skills of all graduates are in great demand--especially in urban areas.

In 1985, the Rehabilitation Services Administration selected WCC's Interpreter Training Program to coordinate interpreter training and community outreach to Region V. This region covers Illinois, Indiana, Michigan, and Ohio. During these five years Waubonsee has been the catalyst for positive change and the focus for coordinating the interpreting needs in this four state region.

The Interpreter Training Project is the outreach component of the Interpreter Training Program and coordinates the grassroots needs assessment and implements the appropriate community based training sessions to meet identified interpreting training needs. The advisory board for this program is composed of three representatives from each of the four states. Board members represent state rehabilitation agencies, interpreter training programs, community deaf service agencies, and the deaf community.

The community training component provides a minimum of sixteen workshops per year in different locations throughout the four states. The workshops feature national presenters who address specific training topics. Topics have included: Interpreting for Deaf-Blind, Oral, Legal, Medical, and Artistic Interpreting, as well as a variety of other topics. Approximately 1,900 individuals received training in these workshops in

1989. In addition to the Advisory Board and the community workshops, the program has undertaken several additional projects of support. Each semester WCC distributes a newsletter of local and regional interest to a national audience. WCC also published a nationwide Interpreter Training Project Consultant Directory that for the first time gathered into one source available interpreter consultant and workshop presenters. On March 23, 1990, WCC uplinked the first national interpreter training workshop/teleclass to college and community receive sites. This innovative project facilitates coordinating skill development for low-incidence populations in a cost-effective manner on a national scale. Nationally recognized leaders in interpreter training participated in this historic event.

Additionally, the Interpreter Training Project was one of the co-hosts for the Fall, 1989 visit and presentation by Mr. Philip Bravin, the first deaf Chairman of the Board of Trustees of Gallaudet University, Washington, D.C. Last year I. King Jordan, President of Gallaudet, visited the WCC Interpreter Training Program and met with the students and staff. This program also co-sponsored the bi-annual Midwest Postsecondary Conference for Hearing Impaired in October, 1989 which brought together midwestern secondary and postsecondary programs serving the deaf to address transition and related issues.

Waubonsee has taken the lead in the identification of needs within the interpreting and hearing impaired communities and has developed innovative methods to meet those needs. The program is not only the oldest Illinois interpreter training program, but it also maintains the largest program enrollment and most extensive community outreach. Waubonsee serves as a community focal point and clearinghouse for disabled and deaf/hearing impaired related issues. The program maintains extensive local, state, and national contact to ensure successful programming.

MENTAL HEALTH / HUMAN SERVICES

Essex Community College
7201 Rossville Boulevard
Baltimore, MD 21237
(301) 522-1329
President - Dr.John E. Ravekes
Contact Person - Alan G. Nemerofsky

The Mental Health/Human Services Program at Essex Community College has demonstrated a high level of student success. Over the last ten years 95% of the students have graduated from the program and 80% have gone on to four-year institutions in psychology, social work, and/or mental health/human services. Since 1982, five graduates have obtained their MSW degree and five others are completing their masters degree requirements in social work. Furthermore, students pursuing a bachelors degree have been able to obtain employment in the field while attending the four-year institutions as a result of the A.A. Degree in MH/HS.

The MH/HS Program is a selective admissions program and is accredited by the Council on Standards in Human Services Education.

Through collaborative efforts with other mental health agencies, the MH/HS Program has been a major innovator in the development of curricula to retrain and expand the skills of workers in the field of mental health/human services. For example, a curriculum was created to retrain Direct Care Hospital Workers for the State of Maryland, Department of Mental Health and Hygiene. This curriculum is required for promotion within the state hospital system and is currently being taught at several community colleges within the state by Essex faculty. The initial curriculum development project took place with the support of a National Institute of Mental Health Grant. Furthermore, this curriculum model has been modified to be used with geriatric aides; a cooperative agreement has been developed to train the geriatric aides of a large gero-psychiatric center in Baltimore, Maryland.

The MH/HS Program was a major contributor in the development and implementation of the Essex Community College's Child Sexual Assault Preventive Program. This primary prevention program utilizes teachers as the natural delivery system of a prevention curriculum specially developed for children three to six years of age. The program has trained over 250 day care teachers in the greater Baltimore metropolitan area and, in turn, over 3700 children have been taught the prevention program. This program has received national attention and has been demonstrated at three national conferences or organizations in the past year.

To meet the needs of students who cannot attend traditional day classes, the MH/HS Program has developed an alternative delivery model for the Weekend College Program. This format allows for greater participation of adults in a degree program due to the greater ease of access to the program courses. It is possible for students to take courses at their convenience while allowing them to maintain their current work schedule. As put forth in **Building Communities**, such nontraditional arrangements are especially important for part-time students.

MENTAL HEALTH SOCIAL WORK

Oakland Community College
2900 Featherstone Road
Auburn Hills, MI 48057
(313) 853-4200
President - Christine Gram
Contact Person - Mel Chudnof

The Mental Health/Social Work Associate Degree Program has its center at the Auburn Hills Campus of Oakland Community College (a five campus 27,000 student institution), and for the last fifteen years it has reached out to the students and community of Oakland County and the greater Detroit and Pontiac metropolitan area.

The program places 100 students per year in over seventy different internship sights. It has consistently had full enrollments, and every year produces the first or second largest number of graduates of any career program at the College. Graduates work in psychiatric hospitals, crisis centers, and other human service agencies. Seventy percent of the graduates also transfer to bachelors degree programs through 2+2 arrangements in the fields of social work, special education, etc. Over half of the students are of "non-traditional" age and backgrounds, many are in transition from the household or from other careers. Twenty percent are already employed in the field and enroll in the program to upgrade their skills or increase their employability.

Several outcome studies have been completed by the staff of the program which have indicated very positive results. These studies include follow-up surveys of graduates as well as assessments of students' success in the opinion of field work supervisors, employers and transfer institutions. The latest graduate study (1986) indicated that over 60% rated the program excellent, 30% very good, and 10% good. Eighty percent said that the program helped them personally as well as professionally, or academically. Sixty-seven percent of the graduates were employed in the field, the rest were in higher education, or had changed career plans. Only 5% said they could not find employment of their choice. In addition to these measurements, we review our program internally by having students complete evaluations each semester. We also meet with our advisory boards who review our activities and offer feedback and support.

There are several unique features of our program. These characteristics address many of the recommendations put forth in **Building Communities**.

The curriculum is designed to facilitate college transfer as well as provide training for associate level careers. We combine the "liberal" and "useful" arts. Because of skills classes and 460 hours of field training, our students automatically qualify for Social Work Technician certification from the state, and yet because of the large number of liberal arts and social science components, over eight different universities accept the program in 2+2 arrangements.

The coordinators of the program have made an effort to use as many field placements as possible to acquaint potential employers with the program and the students. The strategy has worked, because many have hired program graduates. In addition, several employers have contracted with us to educate or update their current staffs. As an example, the entire program was taught on sight at a local psychiatric hospital to upgrade skills and credential eighteen employees. These liaisons have created external recognition. Agencies call to ask for interns or for potential applicants.

We have received external recognition because of efforts to reach out to the community through our "Community Awareness Institute". Low cost workshops and non-credit courses that draw on the resources of the program are offered to professionals and the general citizenry. Nationally-known authorities are brought in annually to speak on topics of mental health and social concern. This branch of our program is a resource and a service to our general community.

Each of our core courses has the special feature of having a skill building component tied to a field placement requirement. Class time is used as a forum for discussion of field experiences and for teaching individual, group, and family intervention skills. Video taping and other teaching technologies are used extensively to help build competencies.

Our collaborative efforts with other institutions have helped create 2+2 programs and a very high transfer rate. Eastern Michigan University offers its B.S.W. courses on our campus. we have been successful in having at least two students accepted annually to the highly selective non-baccalaureate M.S.W. program at the University of Michigan, a program that recognizes special population students who have had work experience in the field. We have also been active in the leadership of the Michigan Council on Human Service Education, an organization of faculty and coordinators of associate, bachelors, and masters level programs. This effort has provided coordination between levels of education and has increased the recognition of our program among institutions and students as being a quality foundation for many human service curricula.

MID MICHIGAN POLICE ACADEMY

Lansing Community College
P.O. Cox 40010
Lansing, MI 48901
(517) 483-1851
President - Dr. Abel B. Sykes, Jr.
Contact Person - Jane P. White

The Mid-Michigan Police Academy was established in 1967 as a collaborative effort of Lansing Community College and local law enforcement agencies. The Academy continues to be an integral link to local, regional and state law enforcement agencies for their police officer needs. Links to other agencies, business and industries are exemplified in this program through:

scholarship funding from law enforcement agencies;
cooperation from Michigan State University with its facilities;
donation of vehicles from General Motors (Buick-Oldsmobile-Cadillac Division);
and, donation of instructors and facilities from the Ingham County Courts and Prosecutors Office.

The Mid-Michigan Police Academy has become a model for other academies in the State. The Police Academy also is reflective of a program that has actively recruited women and minorities and worked with them to ensure success in the law enforcement field. Success of this "hands-on" practical training program also is measured by the fact that 98% of its graduates are placed. The Mid-Michigan Police Academy demonstrates the importance of education and training and promotes the importance of "Associate Degree Training."

Lansing Community College is proud of this unique, innovative, quality program that has a history of producing the best police officers in the State.

PHOTOGRAPHY

Onondaga Community College
Onondaga Hill
Syracuse, NY 13215
(315) 469-7741
President - Dr. Bruce Leslie
Contact Person - Victor Lisnyczyj

The Photography Associate in Science Degree Program at Onondaga Community College has been designed to educate students for transfer to four-year institutions offering photography or for entry into a variety of positions in the photographic industry. The program is rigorous, requiring students to pursue interests in photography, as well as the liberal arts. Our goal is to provide students with a solid preparation in photography thereby offering OCC graduates the competitive edge in today's educational and business environment.

In a unique start, two unlikely and non-traditional segments of the faculty population (Director of Audio Visual and a Job Placement Counselor) came together. After a great deal of combined research of the photography industry and four-year university photography programs, a Photography A.S. Degree proposal was submitted to the State University of New York (SUNY) for approval. The OCC program received SUNY approval of what amounts to a transfer degree with career/technical courses and a very strong general education component. This program was one of the first A.S. Degree Programs in Photography in the SUNY system. This degree is a complete marriage of liberal and technical arts. Classroom knowledge is challenged in OCC's state-of-the-art photo labs, studio and photo-finishing mini-lab.

In less than two years since SUNY approval of the program, photo classes increased from one basic photography class to a full curriculum of ten: photo students, from sixteen to 145 and photo majors from zero to forty-four. Since program inception two years ago, there have been twelve graduates. Some of these graduates have gone on to schools such as the Rochester Institute of Technology, University of Buffalo, University of Kansas, and others. Three students have received scholarships. Of those students that sought immediate employment, jobs were secured at the Syracuse newspaper, professional studios, Qualex Photo labs and two started their own studios. No student has been turned down for transfer to the institution of his/her choice, and no student has been refused employment.

The quality standards for the Photography A.S. Degree started with industrial contacts in the initial program research. This strong partnership not only generated curriculum content, but equipment, materials and supply donations. A unique relationship has

been established with the Eastman Kodak Company. The Company has donated over $125,000 worth of equipment and materials. This included a MC 5A Digital Printer, Photo-finishing Mini-Lab, Kodak TECHNET Computer System, Color Processors, Laser Video Disk Training System, and much more. These donations, just from Kodak alone, makes the OCC Photography Lab one of the best equipped and most modern utilizing the latest in computerized photographic technology. This has led to national recognition of the OCC Photography Program. It has been written-up in several national trade publications **Photo Lab Management** and **Inside Lab**. In addition, the head of the program is currently one of the members of the Kodak Education Advisory Board. This exclusive board has a major impact on the educational support that the Eastman Kodak Company provides to institutions of higher learning.

In addition to the regular photography curriculum, approximately $200,000 of state and federal grant money was secured to conduct four special retraining programs for locally laid-off workers, disadvantaged students, displaced homemakers, minorities and the disabled. These groups were not only exposed to photo lab tech training, but were exposed to counseling, job seeking skills and basic liberal arts. Placement of seventy-five people in the special retraining program was at 80%. Retention of students in both the special training and in the degree programs has been at approximately 90%. Few programs integrate so well technical education, on the job cooperative educational placement, career education, job counseling and one-to-one advising. These retraining programs have received local and state acclaim for their success.

Innovations in the use of the latest in instructional technology have enhanced the learning process. Among these is the use of laser video disk interactive training modules on photo mini-lab operations. Students are able to progress individually on instructional modules, are tested and provided with instant feedback and remedial work, if necessary. Also, in-house video tapes and slide tapes were produced to supplement demonstrations and lectures. These approaches have been shared in small workshops conducted for other college faculty to demonstrate new and innovative approaches in teaching.

One of the most unique aspects of the program is the OCC Photography Club. The OCC Photography Program has indeed built "communities" within the college, local high schools, other institutions, employers locally and nationwide, and with the community around us. Student are building a classroom beyond the OCC community. They have worked with veterans by taking photos of disadvantaged children at Christmas. They took graduation photos on campus. They have taken photo field trips to numerous conducted workshops. In conjunction with Kodak, they have hosted teleconferences on the "Masters of Photography". They conducted high school open house sessions to recruit new photo majors. The students have built a classroom into the community beyond the college itself.

TALENT

Metropolitan Community Colleges/
Penn Valley Community College
3200 Broadway
Kansas City, MO 64111
(816) 756-0220
President - Dr. Zelema Harris
Contact Person - Yvonne S. Wilson

The support and collaboration of three local philanthropic funding sources, the "Learning Exchange" (a non-profit teacher organization with a significant network of classroom teachers in greater Kansas City), the Metropolitan Community Colleges district office personnel, and personnel at the Penn Valley Community College transformed a great idea into a very exciting program.

The program, called TALENT, (Taking a Lead in Educating New Teachers), designed to identify, recruit, educate, and transfer potential elementary and secondary teachers, is an unprecedented organized effort to support teaching as a profession and to provide an innovative, field based teacher training curriculum at the community college level.

The impetus for the program came from sixteen area superintendents, nine of whom currently serve on an advisory committee to the program. This program component addresses the recommendation for connection beyond the college, discussed in **Building Communities**.

TALENT, devised to propel first and second year education students into classroom careers was initiated on the Penn Valley Community College campus in the Fall of 1988.

Applicants are required to: 1) possess and maintain a cumulative grade point average of 2.5; 2) be able to enroll as a full-time student; 3) provide their own transportation to and from intern sites; and 4) achieve a minimum ACT composite of eighteen by the completion of their sophomore year. A unique feature of the program is the practical hands-on experience for student interns early in their academic careers. These experiences, hopefully, will help students make a decision of whether the teaching profession is a suitable career choice. TALENT students begin internship the first semester of the program under the guidance of mentor teachers for five to six hours per week in an elementary or secondary classroom at the Learning Exchange, or at other community agencies. In each of four semesters of the program, the students are placed at a new site.

General education courses, subject matter electives and professional education courses comprise the college based portions of the curriculum.

With a grant from the League for the Humanities Institute for Curricular Redesign, the TALENT Program was strengthened through the inclusion of an integrated humanities

block of courses. One of the local four-year colleges collaborated on the development of themes covered in these three humanities courses.

The goal for the first semester (Fall 1988) was full-time students. Fifty-four applications were received and processed from eighty or more application packets mailed to prospective students. Thirty-five students were accepted into the program. This group included nine (26%) minority students and two (6%) male students. Approximately half of the students in this first class were recent high school graduates.

Thirty-four Fall '88 TALENT students finished the semester completing 365 credit hours for an average of 10.7 credit hours per student. The overall student grade point average was 3.465. Of the first semester, first year (Fall '88) students, one has graduated and transferred to a four-year institution.

The current TALENT enrollment (Spring 1990) is thirty-eight. This number is made up of nineteen second year students and fifteen first year students. The composition of the combined classes includes 34% minority and two males. The 8% increase in minority students represents a concerted effort to increase minority enrollment in the teacher preparation program.

Some successes and outcomes of the MCC TALENT Program include:

Students receive individualized counseling on their courses and information about eduction programs at area colleges and universities. This has several positive outcomes: 1) students see the value of earning their Associate of Arts Degree, i.e., in order to transfer into a four-year institution as a junior, and work toward that goal; 2) students are able to make the most of their time at the community college by taking courses that count not only toward their A.A. Degree but also that fulfill general course requirements at four-year institutions; and 3) students have the opportunity to compare programs from schools of education in the area. Successes related to this are: two students have already graduated and gone on or will be going on to a four-year institution; and, an additional fifteen students will be graduating with their Associate of Arts Degree this May or by the end of the summer, 1990.

Students are blocked together in several courses. Since support groups are not possible through living arrangements at a community college, this blocking serves the very important purpose of bringing the students together on a regular basis and providing a support system.

Through the internship component of the program, students are able to: 1) decide--at an earlier time than usually is the case for potential education majors--whether they really want to be an elementary or secondary teacher; and 2) decide at what level they would like to teach.

Also, through the internship component of the program, students have the opportunity to observe a variety of teaching styles and to build up a repertoire of

materials and activities. Students are required to keep a journal in which they write on assigned topics as well as record personal observations and reflections.

Approximately 34% of the original enrollees are expected to graduate in May, 1990.

TECHNICAL WRITING

De Anza College
21250 Stevens Creek Boulevard
Cupertino, CA 95014
(408) 864-8547
President - Dr. Robert DeHart
Contact Person - Dr. Donna Dowdney

The Technical Writing Program at De Anza College is an exemplary program because of its task internships, the success of its graduates, external recognition from industry and professional organizations, and its interrelationships with business, industry, and the community.

Technical writing is Silicon Valley's lifeblood. Without precise instructional, technical, and procedural manuals, accurate data sheets, on-line documentation, and monographs, companies and organizations could not function smoothly. De Anza's Technical Writing Program, located in the heart of Silicon Valley, gives students opportunities, tools, methodologies, and procedures to prepare a continuous, accurate flow of information.

Task internships give students hands-on experience in preparing technical materials, often within the same work environment students plan to enter when they complete their studies. Through task internships, students prepare materials they can use in their portfolios when they interview for jobs.

The Director of the Technical Writing Program coordinates with employers in designing internships appropriate to students' background and experience; the Director then matches students with internship sponsors. Student interns perform specific tasks such as proofreading technical data, creating abstracts, preparing manuals, organizing databases, designing flyers and brochures, and developing training materials. Current student interns work with software publishers, the Youth Science Institute, a company producing computer catalogs, and diverse manufacturers. They also prepare materials for use in departments in both colleges of the De Anza-Foothill College District. Previous internship opportunities culminated in students obtaining full-time jobs with internship-sponsoring companies.

Successful technical writing students have published books; one dealt with nuclear weaponry, another became the best-selling guide to family camping with reviews in the **New York Times**. Students have published articles and monographs in healthcare, veterinary, computing, medical, and other scientific and technical journals.

Program graduates are now employed as publications managers in robotics, aerospace, and computing firms. These graduates, in turn, sponsor technical writing internships within their companies, serve on the Technical Writing Industry Advisory Board, and employ current technical writing students. Students are obtaining employment in the local community based on their newly acquired technical writing skills.

As the Technical Writing Program's reputation spreads, companies throughout Silicon Valley inquire about the program. Students travel from long distances to classes. Companies send employees for training in writing skills. Additionally, professional organizations, including the Society for Technical Communication and the American Medical Writers Association have acknowledged the contributions of the Technical Writing Program. Frequently, the program's director speaks at professional meetings regarding areas within the Technical Writing Program. Entire classes attend special events that the professional organizations sponsor.

For example, in May of 1990, many technical writing students will attend and actively participate in the International Technical Communication Conference. Over 3,000 technical communicators nationwide will attend this conference. De Anza's students will design a trade show booth, represent the Technical Writing Program, and design materials to be distributed to attendees. This participation not only heightens awareness of the program, but also allows students to obtain career information from leading industry employers.

Technical writing students write and publish newsletters that reach into companies and professional organizations. They also design, write, and publish monographs. One monograph profiles companies employing technical writers in Silicon Valley.

The Technical Writing Program has built a solid foundation of linkages with local business and industry. This foundation rests upon the expertise of the Technical Writing Industry Advisory Board. This Advisory Board brings expertise from a variety of industries including healthcare, pharmaceuticals, computer software and hardware, financial institutions, business, independent contractors, and management. Industry Advisory Board members meet quarterly with faculty to share insights and current trends with faculty members. They advise on curriculum, facilities, technological advances, and career opportunities. They also contribute examples of published materials used within their industries.

THEATRE/FORENSICS

Utah Valley Community College
1200 South 800 West
Orem, UT 84058
(801) 222-8000
President - Dr. Kerry Romesburg
Contact person - Kim I. Brewster

Theatre: In a six-year period the program has grown from one production annually to four mainstage productions and the largest touring children's theatre program in the state of Utah. A wide variety of productions offer opportunities for college students and community members to perform in musicals, comedies, classical, and contemporary plays as well as theatre designed to entertain children in their schools at no cost to the students. Top honors have been won by such productions as "Godspel", "Julius Caesar", "Quilters", "Man of LaMancha", and many others involving over 200 student actors/technicians annually.

The touring children's theatre program has received grants from the Utah Arts Council to extend its tour state-wide. Last year's tour played forty-seven performances in thirty-three locations to over 25,000 students at no cost to the individual audience members.

Forensics: The program has grown from its inception in 1984 with five students to its current status of twenty-four team members. During the past five years the team has won third place in Regionals in 1986 and has won regional championship honors for three years running, 1987-89. Last year's team finished fourth in the National Championships. A total of over 180 students have participated and seventy-six have won honors on the regional level with twenty-three being honored on the national level. Last year alone, ten won national championships. Thus far this year the team is ranked second in the nation.

The growth of this program has been accomplished under the direction of Kim I. Brewster, who has been named "Teacher of the Year" previously at Eastern Arizona College and Southern Illinois University as well as here at Utah Valley Community College. He also won the "Excellence in Teaching Award" from the Utah State Board of Regents. He has served as regional tournament director for four of the past five years and has served on the national committee of Phi Rho Pi. Recently he was honored by the State of California's Forensics League as its "Coach Of The Year", the first time the award has been given to a non-California coach.

A member of Phi Kappa Phi, Mr. Brewster has also won "Best Director" awards in the states of Utah and Illinois, and has been nominated on three other occasions. He served two terms as president of the Utah Theatre Guild.

The Theatre/Forensics Program has helped to develop the community in several ways. All productions at the College are open to members of the community and

traditionally about 50% of all cast members are non-students. Guest directors from the community direct one of the four mainstage productions annually. In addition, Mr. Brewster has served for the past four years as an officer of the Theatre Guild of Utah Valley, two terms as president. Also, he has served on other theatre boards including the American Fork Theatre Guild, the Payson Community Theatre Playmakers' Board, and the Utah Pageant of the Arts governing board. He has hosted regional and state high school competitions in theatre and forensics. The Utah Valley Community College facility has been host to numerous community activities in theatre and speech. Finally, the theatre productions and speech activities bring together a large number of students and community members as audience who come on campus for that purpose.

Most of the productions bring together a wide range of age groups. In one recent production, eight cast members were thirty-five to forty years old, nine cast members were in their twenties, six were teenagers, and eleven were children. This is typical of the melting pot which is theatre at UVCC.

The certificate program, a component of the Funeral Service Education Associate Degree Program, has been very successful and the intention is to offer the program regionally at other N.C. community colleges.

The Funeral Service Education Department has historically included much practical training in addition to theoretical instruction. Local funeral homes have worked hand-in-hand with the College to insure the student has the opportunity to put into practice what was learned through instruction. This concept parallels that of a student teacher. The College has, as part of the physical facilities, a state of the art embalming laboratory. This facility is utilized for hands-on instruction of practical embalming.

Service was originally offered to area funeral homes but in 1989 a change of direction was instituted and an agreement was reached between the N.C. Commission of Anatomy, the N.C. Chief Medical Examiners Office, and the College, that would enable FTCC to receive human remains that were either donated to the commission or at the time of death were unclaimed and subsequently became the responsibility of the state. The agreement allows funeral service students to embalm and prepare cadavers that are used by the medical schools in North Carolina. The Department's embalming of unclaimed bodies allows additional time to locate relatives who subsequently could claim the body for a family burial service. This situation has occurred three times in the last year, where a person who died was considered unclaimed, and family members were eventually located. The fact the body had been preserved offered the family the opportunity to take possession of the remains and have funeral services conducted. The emotional benefit the families received is immeasurable. Because all institutions involved are state supported, the cost savings to the family is substantial.

As we enter the decade of the 90s, funeral service as a profession faces many challenges. The fact that there are only forty institutions that specialize in Mortuary Science Education in the United States places FTCC in an excellent position to be at the forefront of excellence and act as a model to lead, to develop, and to implement the necessary changes required to keep pace with the ever changing profession.

BUSINESS

ACCOUNTING

Navarro College
3200 W. Seventh Avenue
Corsicana, TX 75110
(214) 874-6501
President - Dr. Gerald E. Burson
Contact Person - Pamela D. Anglin

Navarro College instituted a one-of-a kind program in 1988. This program allowed students to complete a two-year degree, receive an associate degree, and take the Certified Public Accountant exam in the state of Texas. The curriculum is an intense study in accounting. Accounting courses normally taught at the junior and senior level are taught in the two-year program at Navarro. The program was designed for the more mature or adult student. After completing the program, the student is prepared to accept a position as an accountant with an organization and is prepared to sit for the CPA exam.

This program has given individuals in the Navarro County area an opportunity to become a professional in a field where there are many job opportunities and potential for earnings growth. Industries in the area have enrolled their employees. Area CPA firms have enrolled their bookkeepers. The program has allowed individuals, who have worked in the same job for years, to become certified as a professional and attain new career goals.

The program also has students enrolled who have bachelors degrees and who wish to broaden their career opportunities. In May, 1989 the first group of our students took the CPA exam, with a 20% pass rate. The national average is 15%. Twenty-two students sat for the exam in November, 1989.

Many of the students enrolled in the program have family and work commitments confining them to this area and preventing them from driving the sixty miles to the nearest state supported university. At Navarro they can go to school part-time or at night to complete this associate degree program. As the United States becomes more service oriented and government regulation requires more detailed record keeping, Navarro College will give individuals the opportunity to train to become professionals in the business field.

ACCOUNTING WITH MICROCOMPUTER APPLICATIONS

Massachusetts Bay Community College
50 Oakland Street
Wellesley Hills, Ma 02181
(617) 237-1100
President- Roger A. Van Winkle
Contact Person - Armand Potenza

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: The primary focus of this certificate program is to provide marketable skills to adults reentering the work force or making significant career changes because of employment displacement. An intensive full-time curriculum is completed during a twenty-six-week period and is designed to provide a combination of accounting knowledge and microcomputer skills that conform to the current needs of employers. The program includes sixteen credit hours in accounting, four credits in computer literacy, two credits for an internship assignment, and one credit for a career planning component.

All students who have completed the program requirements to-date and who actively sought employment are employed in entry-level or similar accounting positions. The majority of the students who completed the program had no previous accounting or computer training.

During the final three weeks of the program students serve as interns for local employers to earn two college credits. Following are comments from evaluation forms completed by employers who had students assigned to them by the program:

> The project Ann worked on was researching shipment information for our products. We have several million dollars waiting to be billed for products not shipped. She did a good job uncovering several weaknesses in our procedures that were resulting in shipment dates not being entered correctly..From the three weeks of work she did, we managed to bill over $2,000,000 in products that were already shipped, but our records were incorrect.
>
> He set up an expert chart of accounts in Champion software. We are very pleased with his work.
>
> I thought the program was a great success. I would be most willing to participate again in the future. The intern assigned to my area demonstrated competence and integrity. He was well prepared and pleasant to work with. Mass. Bay Community College was well represented by.....during his assignment.

EXTERNAL RECOGNITION: The program was one of three chosen by the Massachusetts Division of Occupational Education to be nominated for a national award.

The College is developing positive relationships with the business community as evidenced by the above evaluation responses. Verbal comments from employers and employment agencies have indicted that graduates "demonstrate excellent knowledge of accounting during interviews" and "your students taught our employees some Lotus 123 spreadsheet applications they were not formerly aware of."

BUILDING COMMUNITIES: The **Building Communities** report set forth certain academic goals that community colleges should pursue during this decade. A clear priority towards the older student was conveyed when the report stated that "the community college should make available to adults a rich array of short term and continuing courses to encourage lifelong learning and help students meet their social, civic, and career obligations."

During the last two years that the Accounting with Microcomputer Applications Program was conducted, the median age of the participants was forty-one years. The majority of the students were female, and this year over 25% were single parents. Commonly, the students are reentering the work force after having been absent because of parenting responsibilities and are seeking to upgrade or build skills that will enable them to gain employment in as short a time period as possible.

This program directly serves the career objectives of the older female student through its accounting and computer emphasis. In addition, a career planning course focuses on assessing skills and experience and communicating them to potential employers through effective resume preparation and job interviewing techniques. This combination is critical in ensuring that the student is proficient in the field and also has the ability to communicate that proficiency to potential employers.

UNIQUE CHARACTERISTICS: Several accounting texts include instructional materials for professors which make use of the microcomputer to practice accounting skills through special computer programs that closely follow text material. Students work textbook problems on simple practice programs and often make use of prepared spreadsheet templates to observe the use of spreadsheet software used in the business world.

The approach taken in our program departs from this norm by virtue of its emphasis on building thorough knowledge of Lotus 123 software, and applying it to problems that vary from textbook exercises to practice sets that were designed by publishers to be completed manually. By the end of the program students are to design their own automated accounting system using Lotus 123, and to apply it to a practice set that includes all the major components of a business accounting environment.

In addition, instruction is provided in the use of a proprietary accounting software package that is used by over 250,000 small and medium-sized businesses world wide. The version used is not a student version, but a complete integrated accounting system that students are likely to encounter in the business world.

During the career planning and job search training, the student is presented with a marketing approach to the process. Sales techniques are discussed and applied to the "marketing campaign" involved with the job hunt. Video taping of mock interviews gives many students their first opportunity to evaluate how they appear to the outside world.

ACCOUNTING TECHNOLOGY

Stark Technical College
6200 Frank Ave. NW
Canton, OH 44720
(216) 494-6170
President - Dr. John McGrath
Contact Person - Mr. William Lucas

UNIQUE CHARACTERISTICS: Stark Technical College's Accounting Technology Program has a long-standing reputation for excellence, both locally and statewide. This excellence stems in part from an extremely qualified and dedicated faculty but, even more importantly, from a unique characteristic that set STC's Accounting Program apart from those at other two-year technical and community colleges. It's essentially a four-year program offered in two years.

STC's Accounting Program is unique in that the core accounting courses meet, and in some cases exceed, those of four-year programs at colleges and universities. STC Accounting students take fifty-three credit hours in core accounting courses in the CPA and Corporate options and fifty-six credit hours in the EDP option. These hours exceed the CPA exam requirement of thirty-six credit hours in accounting courses to qualify to sit for the exam. In addition, textbooks used in the program are the same as those used in four-year programs.

The rigorous program has been so successful at taking average high school graduates and developing them into highly motivated, extremely competent accountants (trained in a variety of specializations - Corporate, Public and EDP) that many two-year colleges in Ohio have set out to emulate STC's program and duplicate its curricula.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: STC's Accounting Program has more documented measures of success than any other program at the College. First, sophomore students' scores on the American Institute of Certified Public Accountants Level II exam have consistently been higher than the median score of the test group. Another equally positive measure of program strength occurred in 1988 when students in three Principles of Finance classes took a standardized proficiency test developed by the Educational Testing Service. Of twenty colleges and universities participating (only two of them two-year schools), STC students placed third.

Accounting students are frequent recipients of scholarships and Dean's List recognition. Over the eighteen-year history of the Accounting Program, nearly half of program completers have graduated with honors. For fourteen years, alumni of the program have supported the Accounting Technology Alumni Award--the only alumni group at STC to do so, demonstrating the strong ties that alumni of the program have to the department and the College.

While placement of program graduates has been outstanding (an average of 98.6% over the past five years), the greatest indicator of graduate success is the number who have achieved CPA status (with the two-year degree) and particularly the number who have passed all four parts of the exam on the first sitting. To date, the Department is aware of thirty-six alumni who are CPAs. Thirty-six percent of those passed the exam in one sitting. This compares to a U.S. average of 20.6 and state average of 15.7.

Many accounting alumni have continued their education. Fifty-eight have obtained bachelor's degrees and two, master's degrees. But, as one alumna put it: "My Accounting Degree from Stark Tech is the important one. My Bachelor's Degree in Management is just for the record because I need that piece of paper to do any more advancing." Graduates of the program are moving into such jobs as vice president-finance, treasurer/controller, portfolio manager, and MIS financial director. Nearly one-fifth of the graduates are in supervisory positions. Four alumni of the program serve on the Accounting Technology Advisory Committee.

EXTERNAL RECOGNITION: A 1987 survey of accounting graduates' employers revealed consistent "above average" and "excellent" ratings in five of the six areas surveyed --preparation for employment, human relations skills, initiative, quality of work completed and level of technical skills. The sixth area, communication skills, rated between "average" and "above average." Additionally, recent recognition by the Canton Chapter of the National Association of Accountants of Department Head William Lucas served as a further endorsement of program excellence. The chapter recognized him for his "promotion of professionalism in accounting, the CMA and for..encouragement of active membership in NAA," as well as his fifteen years of service to the organization which included serving as president and being instrumental in forming the STC student chapter (one of two in the state at two-year colleges).

Internal recognition of program quality has occurred since 1985 when the College began entering the Ohio Board of Regent's Program Excellence competition. Each biennium, Accounting Technology was considered outstanding enough to be submitted to the program. This year the internal recognition turned external, as the Accounting Program was one of forty-two academic programs in the state selected to enter phase two of the review process in this prestigious grant program.

BUILDING COMMUNITIES: Among the AACJC study recommendations impacting most on the program are:

* A college-wide retention effort. The Accounting Department plans to impact on this Fall Quarter '90 by spreading the content of Principles of Accounting I and II out over three quarters to retain more students.

* Tech Prep and articulation agreements with area high schools. The Accounting Department was the first program in the Business Division to complete articulation agreements with area voc-ed districts.
* Faculty enrichment projects. The Accounting Department has had more faculty participate in the College's Faculty Internship Program than any other program at STC.

ADMINISTRATIVE SUPPORT TECHNOLOGY

University of Cincinnati Clermont College
Batavia, OH 45103
(513)-732-5200
President - Dr. Roger J. Barry
Contact Person - Lindsay Danahy

The AST Program offers three major options: Business and Office Administration, Administrative Support Co-op, and Records and Information Management Co-op.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: About 90% of the students are the first generation to attend college (only 10% had a parent with a college degree). Some 62% had followed a college prep curriculum in high school, 17% had chosen a vocational track, and 21% a general. AST students do better academically than the typical student; over the last three years, students in the program average GPAs of 3.14 vs. 2.81 for the College overall. AST courses have lower attrition: 7.8% vs. 11.9% for the College overall. Students have outstanding co-op and internship experiences, with student progress monitored quarterly through a student self-assessment and an employer report. For the most recent three-year period, employers' final evaluation reports overall ratings are 86% excellent or above average. Placement reports from the last five years reveal a high degree of success for AST graduates: 92% were employed full-or part-time; another 4% were unavailable for employment. Only 4% were seeking employment, significantly below local, state, and national unemployment averages. AST graduates rate their College experiences at 9.2 on a 10 point scale, higher than the 8.6 average for all College programs.

EXTERNAL RECOGNITION: In 1987, records and information management was identified as a potential growth area. After surveying professional literature and talking with business and industry representatives, a special business and industry committee was formed to assist the College in exploring the need and feasibility for a new program option, Records and Information Management. A professor received a grant from the University to develop the curriculum, and as the result of her hard work and dedicated efforts, this new option has been added to the program for the 1989-90 academic year. The curriculum was so well designed the Association of Records Managers and Administrators International (ARMA) has adopted our curriculum as a model for a two-year degree throughout the world. Another external measure of quality is the fact that over the last five years, Clermont students have won five of the

ten Professional Secretaries International Scholarships available for the entire Greater Cincinnati area; this annual competition pits our students with those from over a dozen other colleges and includes not only schools in Cincinnati, but in Kentucky and Indiana as well.

BUILDING COMMUNITIES: Our program exemplifies well several components, particularly those in "Curriculum and the Classroom as Community". The curriculum addresses directly the issue of "From Literacy to Lifelong Education." UC Clermont College is committed to "A Core to Common Learning" and has played a leadership role in the development of University-wide general education; it was the first of nineteen University units for example, to establish its general education core curriculum requirements.

Students take 25% of their coursework in English, speech, mathematics etc.; they are also required to take from three to nine additional hours of general education electives.

The purpose of the Administrative Support Program is to prepare graduates for immediate employment in business and industry; the program's objectives are 1) to prepare personnel who can provide direct support to management in business and industry through specific skills, 2) to provide business and industry with personnel whose strong general education and understanding of managerial concepts and computer operations enable job promotions ("The Essentialness of Work"), and 3) to inculcate graduates with the idea that professionalism in a productive and competitive state, national, and international economy means a commitment to life-long learning ("Learning for a Lifetime").

Surveys reveal 50% of our graduates have taken or are taking college courses after leaving Clermont. Approximately 17% complete a baccalaureate degree, and about 10% advanced degrees. Baccalaureate degree recipients averaged GPAS of 3.35, higher than AST students achieved at Clermont and higher than the all-University of Cincinnati average of 2.77. "The Classroom as Community" can be seen in both "Excellence in Teaching" and "Technology and Teaching."

Both full-time faculty have extensive work experience in the field; both have master's degrees and both have reached the associate professor rank and are tenured. Promotion to senior faculty rank and tenure are important measures of instructional quality at Clermont College because Clermont's promotion and tenure policies must follow University of Cincinnati guidelines and all college personnel actions must be approved at the senior provostal level.

Both faculty are professionally active and have pursued external funding sources to enhance their instructional abilities. One has received Professional Secretary Certification and Office Automation Professional Certification.

The relationship of "Technology and Teaching" can be seen in the history of the AST Program. Initially it was called "Secretarial Studies." Recognition of the need for higher levels of thinking skills has led us to rename the program "Administrative

Support" and to emphasize critical thinking. A highly significant modification occurred in 1983, when the College created a dedicated Lab with twenty NCR Word Processing units. The curriculum was extensively revised to incorporate instruction in this important new technology. In 1988, further major revisions were made to take advantage of changes in technology and to provide students with additional curriculum options. Our NCR units have been replaced with sixteen AST 360 Bravos (one is a file server), IBM AT clones. These new units allow training on Word Perfect Software, an industry standard in our area, and allow demonstration of other word processing programs, data bases, and spreadsheets to give students familiarity with various systems.

UNIQUE CHARACTERISITCS: One unique feature of the AST Program is the support it has received from local business and industry who are served by its graduates: Numerous scholarships are available exclusively for Clermont's Administrative Support students. Over $13,000 in business/industry scholarships is now available to support 5 scholarships, including two full-tuition, two-year scholarships. Also, U Clermont is one of only fifteen colleges in the United States and Canada whose students are eligible for ARMA Scholarships.

BUSINESS COORDINATED STUDIES

Seattle Central Community College
1701 Broadway
Seattle, WA 98122
(206) 587-3830
President - Dr. Charles H. Mitchell
Contact Person - Michael O'Neill

The Business Coordinated Studies Program is a fifteen-eighteen credit program that has been offered several times in the past two years. Each quarter, the program features a combination of a five-credit English class, a five-credit mathematics class, and an issues-oriented business administration course. We have chosen to orient this program to developmental students--those whose academic backgrounds create barriers to success in college-level work. Thus, the English and mathematics courses are numbered below 100.

Three faculty are selected for the Business Coordinated Studies program--one English instructor, one math instructor, and one instructor from the business area. The objective of the program is to integrate the various subjects. It would not be uncommon, therefore, for the English teacher to aid the students in the learning of fractions, nor would it be unusual for the math teacher to lead a discussion on paragraph construction.

The faculty spend considerable amounts of time with one another, determining teaching content and strategy. Owing to the nature of the integration process, and the

amount of time required to cover so much material, teamwork, cooperation and planning are vital to the success of a coordinated studies program. On the other hand, the integration of subject areas frequently produces efficiencies for the learner. One obvious outcome of such programs is the transition of the student from individual learner to one who can learn from peers as well as the instructor.

During one Business Coordinated Studies Program, students were assigned the project of creating their own business. Although they could not, in many cases, actually start a business, they went through many of the required steps that a new entrepreneur would be expected to do. By working in teams, students acquired some knowledge of the frustration and opportunities provided by teamwork. Utilizing mathematical formulations, they made sales and income projections. Through critical thinking exercises, they acquired an awareness of the legal constraints imposed by governmental agencies. At the end of the course, each student was given the opportunity to "sell" their business idea to the class. Not only had the students studied business, they actually had experienced the feeling of being in business.

The results of this Business Coordinated Studies Program have been dramatic. Student retention is high--those enrolling in such a program tend to stick with it and succeed--a difficult proposition sometimes with developmental students. Faculty morale and classroom preparation are enhanced because curriculum development and lesson plans are daily requirements. The major outcome is that students coming out of this program not only know something about business, they behave as if they now have business experience. This result is almost impossible to achieve in a standard classroom setting.

BUSINESS OFFICE OCCUPATIONS

Fresno City College
1101 East University
Fresno, CA 93741
(209) 442-2222
President - Dr. Ernest Leach
Contact Person - Shirley Bruegman

The Business Office Occupations Program is designed to put people to work and provide them with the foundation skills/knowledge to be successful in their career and in their personal lives.

Working with a broadly-based community advisory committee, the Office Occupations instructors took two years to structure the program. The first task involved advisory committee input to determine what knowledge and skills were needed to work in any entry-level capacity in an office. Some existing courses were modified and some new courses were developed--all competency based--to become the common core:

Business English, Spelling and Vocabulary, Office Attitudes and Procedures, Beginning Typewriting, Production Typewriting, Records Management, and Refresher Mathematics.

Several of the courses may be challenged by the students whose academic or skill levels are at the same level or exceed course content. Articulation agreements with feeder high schools have permitted students to take the same level courses while at high school and receive credit for the course(s) when they matriculate at Fresno City College. This "leg up" has encouraged high school graduates to continue their education.

The next task for the faculty and advisory committee was to establish career areas that students could pursue after completion of the common core. These now range from a two-semester program of entry-level clerical emphasis of twenty-seven units to the Legal Secretary emphasis of fifty-one units. In addition, students can earn certificates/degrees in Medical Assistant: Administration, Medical Receptionist, Medical Transcriptionist, Secretarial, and Typist/Word Processor.

Many of the students are re-entry students. These students need one-on-one attention. A faculty member is assigned to each student to assist with registration, academic concerns and just provide that personal touch that is needed. Some students have language difficulties, and faculty can recommend courses to help. The retention rate has improved because students know that there is someone who will listen and help and who cares. The counseling staff and re-entry staff also work closely with the students and with the business faculty.

The curriculum is traditional, but how it is structured is exemplary. The career emphases are outlined on program planning sheets. Students are scheduled into classes during morning hours and spend most of the afternoon hours in a skills lab which closely simulates an office environment. As the students spend a great deal of time together, some of the same challenges occur as would in actual office situations. The peer support and peer competition help prepare them for the real world.

Students are encouraged to complete general education requirements and, thereby, earn an Associate in Science Degree. In some cases, this entails going to school both day and evening; or after they are employed, returning to take the general education requirements in the evening. The English and math courses are cross-referenced with courses in the math and English divisions. The communication that exists between instructors in several departments and divisions is a strength of the program.

The program has been featured in **The Fresno Bee**, the local newspaper, and the school newspaper. It was also the focus of a day-long workshop for California business educators that was held in February, 1990. As the program is becoming known in other community colleges, we are receiving requests for brochures, program planning guides, and any other information that will guide campuses in developing a similar program. The best testimonial is that graduates are getting hired faster than we can train them.

COURT REPORTING

Clark State Community College
Box 570
Springfield, OH 45501
(513) 322-5216
President - Albert A. Salerno
Contact Person - D. Kay Frazier

Court Reporting at CSCC is a two-year program preparing students to enter the profession as official reporters or as free-lance reporters. The program includes courses in machine shorthand, anatomy and physiology, psychology, office management, law and legal terminology, typing, business communications, and general studies consisting of the humanities and social sciences. As this is a language-based technology, emphasis is placed on English and vocabulary development. In addition, students are trained in computer-assisted transcription, providing them the opportunity to be in the forefront of technology.

To provide a transition from the academic world to the professional world, students are required to intern for a total of eighty hours with professional reporters. Half of these hours are spent in the courtroom, and the remainder are with various free-lance firms.

The program was first approved by the National Shorthand Reporters Association (NSRA) in 1976. The first state-assisted college in Ohio to receive this accreditation, CSCC has maintained this approval, which is based upon stringent requirements. The last on-site visitation by NSRA in 1987 resulted in the following observations summarizing the visitation team's findings: faculty and students have excellent rapport; school plant and equipment are excellent; excellent technology class with computer equipment; excellent resource facilities.

Concurring with the AACJC recommendation that good teaching is the hallmark of the community college movement, CSCC is pleased that Mrs. D. Kay Frazier, the program's lead teaching faculty member, attends NSRA workshops, seminars, and conventions; serves as a member of the Board of Approved Reporter Training (BART) evaluation team for NSRA; has served as Special Advisor in Education to the president of NSRA; has been a speaker at two NSRA Teachers' Workshops sponsored by BART; has been a speaker for the Ohio Business Teachers; was one of three CSCC faculty members to receive a Professional Excellence award in 1988; was honored by the National Institute of State and Organization Development (NISOD) with a National Teaching Excellence Award in May 1989; recently completed a book review for Prentice Hall; and has been asked to submit an article for **National Shorthand Reporter**.

Encouraging students to be active, cooperative learners, CSCC regularly conducts student evaluation of instruction. The Fall 1988 SEI results indicate that out of a perfect score of seven, the average full-time court reporting faculty members' score is 5.8249, while the CSCC faculty average is 5.7624. Students gave high ratings to the quality of instruction and to the quality of the overall program.

CSCC has an open admissions policy that allows anyone with a high school diploma or equivalent to enter, although court reporting requires a minimum typing speed of thirty-five words per minute. Students who are not well prepared are offered pre-technical instruction and free tutorial assistance. Of the students currently enrolled, 98% are female. A survey of the classes conducted in September 1989 revealed that 64% are single; 20% are married; 14% are divorced; and 2% did not respond. The class contains 13% single parents, is 5% black and 95% white, and has an average age of 24.5. Students currently enrolled come from seven counties in Ohio. Thirteen percent of the class already hold either an associate degree or a bachelor's degree, and 71% hold either full- or part-time jobs. Twenty-two percent of current students have scholarships.

Although the program is a challenging one, 37% of the current students report that thy have been on the CSCC Dean's List and 26% have received recognition in the form of awards and/or scholarships.

Since graduates are predominantly female, the alumni are very difficult to track because of name changes and societal mobility. In May 1989, surveys were mailed to seventy-six alumni of the program. The response rate was 63%. Ninety-two percent of the respondents are currently employed as court reporters. The remaining 8%, who are not now reporting, were previously employed as court reporters, establishing a 100% employment rate in the specific field of training immediately after finishing their work at CSCC. Eighty-one percent of the program's alumni who are currently employed in the field reside in Ohio.

CSCC Court Reporting alumni not only enter the field for which they were trained, but also excel in that field. They voluntarily test their skills by participating in the national certification tests. The first level of skill testing is the Registered Professional Reporter, and the second level is the Certified Shorthand Reporter. The alumni survey indicated that 65% of the respondents hold the RPR, 38% have qualified for the CM, and 4% hold a state CSR. Also, 7% have participated in speed contests on the state level; 2% have competed on the national level; one graduate has placed 3rd in Ohio on two different occasions, qualifying on numerous occasions; another has qualified in Ohio on all three segments of the contest; and another graduate placed 3rd in Ohio on the speed contest held in September 1989.

Eighteen percent of the respondents have either earned bachelor's degrees at other institutions or are pursuing additional degrees at this time. One graduate worked as a court reporter to finance law school expenses and is now a practicing attorney. Another alumna owns the Miami Valley School of Court Reporting in Dayton, Ohio,

and meets the needs of those students who require night classes. Twenty-five percent of the respondents own their own court reporting business, most of which are in the state of Ohio.

Two percent of the alumni respondents indicate annual earnings of less than $15,000, 5% earn between $15,000-$20,000, 7% earn $20,000-$25,000, 16% earn $40,000-$50,000. These earnings, along with the many distinctions earned by the graduates, speak well for a program which has only two requirements for beginning students--a high school diploma and a demonstrated typing speed of thirty-five words per minute.

ENTREPRENEURIAL INSTITUTE

Jefferson Community College
1000 Community College Drive
Louisville, KY 40272
(502) 935-9840
President - Dr. Ronald J. Horvath
Contact Person - Mary Ann Hyland-Murr

The Entrepreneurial Institute was established at Jefferson Community College in 1986 at the request of community leaders, who wanted a program designed to train participants in all aspects of starting and operating their own small businesses. This training is offered to a wide segment of the community, including the disadvantaged, dislocated workers, single parents and the general public, and is considered a tool for economic development in the community. The Entrepreneurial Institute was named a National Model Program in 1989 by the United States Association for small Business and Entrepreneurship.

The Entrepreneurial Institute is a flexible program designed for both present and prospective small business owners. Program length and topics covered vary according to the needs of the participants. Past trainings have ranged from four-week sessions meeting once a week for six hours to fourteen-week, custom-designed courses meeting up to three times a week for a total of 144 hours. Enrollment is limited to assure individualized attention and group bonding. Resources, class materials and scheduling vary based on the scope and length of the program. Funding is from private fees as well as grants.

The Entrepreneurial Institute uses a variable format consisting of class lectures, audio-visual presentations, database research, guest speakers, field trips, interactive video, computer and word-processing time, assessment and group interaction. The setting is informal and applies the basic principles of adult learning theory.

At the completion of JCC's Entrepreneurial Institute, participants are able to research and create a business plan that provides a blueprint for his/her small business. Participants receive information and instruction which will enable them to:

understand business operations and organize approaches to funding sources
select the best business location and utilize effective advertising vehicles
manage money and develop a fundamental bookkeeping system
understand basic principles and practices of purchasing and salesmanship
understand fundamental legal requirements of owning a small business
learn necessary organizational skills for operating a small business
utilize local assistance resources to ensure success
understand basic marketing promotion and graphic arts concepts

Program participants benefit from the knowledge and expertise of business instructors who have also been small business operators. The practical, hands-on approach prepares the prospective small business owners by providing detailed, comprehensive and realistic instruction in all aspects of owning and operating a business. Community resources from the SBA, Chamber of Commerce, government agencies and funding institutions make valuable contributions by providing guest speakers.

Resources are researched and updated on a continuing basis. Materials and information are gathered from federal, state and local government sources, SBA, Chamber of Commerce, community agencies and others.

The supportive and positive atmosphere created at JCC for adult learners provides an environment which motivates and stimulates participants. In addition, the program uses the College's faculty and staff from a wide range of disciplines to add insight, incentive and support in the form of assessing basic skills and personality type, providing remedial help, furnishing access to research databases and techniques and exploring public relations and marketing sources. The College provides space for an Entrepreneurial Laboratory equipped with interactive video, IBM personal computers, laser and dot matrix printers, and an extensive assortment of up-to-date business software, books and resource materials. Faculty and staff are experienced and knowledgeable in the principles of adult learning, in building self-confidence and self-esteem, in using a wide range of instructional techniques to conform to individual learning styles and in adapting programming to accommodate a variety of schedules and timetables.

GOLF COURSE OPERATIONS

Lake City Community College
Route 3, Box 7
Lake City, FL 32055
(904) 752-1822
President - Dr. Muriel Kay Heimer
Contact Person - John R. Piersol

The Golf Course Operations Program at Lake City Community College started in 1967. It was a two-year A.S. Degree Program that slowly evolved into the current three-year format.

The success of the students is a significant reason for the international reputation the program enjoys. LCCC is known as "the place to go" to become a golf course superintendent. Currently, the average starting salary for a graduate is $20,000-$23,000 as an Assistant Superintendent. One to five years after graduation, many students are ready to become superintendents. Salaries then range from a low of $25,000 to over $70,000. It is common for a good graduate of five-ten years to earn $35,000-$50,000. Employers call the school continually asking for a Lake City graduate. Last year the thirty-seven seniors had fifty-sixty job offers come through the school.

The combination of practical experience and technical training works. The students are well trained and perform well in the field.

The GCO Program is known throughout the world. Currently students from Finland, England, Canada, Bermuda, Ireland, and Spain attend the program. These students came because there is no place in Europe offering such training. International students hear about the program from golf contacts in their country.

Students with varied background come from all over the United States. Students with B.A. or B.S. degrees seek the GCO degree. Last year the third female graduated, and she had an M.B.A. before coming to Lake City. There are two females in first year GCO, and two females have been accepted for Fall 1990.

The Golf Course Superintendents Association of America (G.C.S.A.A.) recognizes Lake City as a major force in training superintendents. This is the national professional organization of the industry. The school is one that is recommended when students call G.C.S.A.A. to get information on such career training. Many practicing superintendents also recommend the school. In fact, most of the students come from golf courses where the superintendents encouraged an outstanding employee to further his/her education at LCCC.

The G.C.S.A.A. recently held its national convention in Orlando. The school was granted free trade show booth space to advertise the GCO Program. Over 17,000 people directly related to golf course design, construction, and maintenance were in attendance. The booth was swamped with requests for information. Besides U.S. interest in GCO, people from Japan, Portugal, Finland, Canada, Singapore, Thailand, France, Korea, Argentina, Austria, and England sought information about this unique program.

The College has an existing student exchange program with Finland. Last year an American student spent three months there for his required on-job-training. His travel expenses were paid by the Finnish Sports Institute and FINNAIR Airlines. They also paid the expenses to have a faculty member come to Finland to check on the students and give seminars. This year it appears that the Finnish student will graduate and return to Finland, the American student who went last year will return to accept a golf course superintendent position, two second year GCO students will go to Finland for their O.J.T., and another faculty member will check on the students and give professional seminars.

Building Communities recommends the recruitment and retention of top quality faculty. This has been a key to the development of the Division of Golf Course Operations/Landscape Technology at LCCC. There has been some turnover in faculty and division administrators over the past twenty-three years, but a strong team spirit has always existed. There exists throughout the division a desire to produce outstanding professionals for the golf and landscape industries.

The College has allowed the division to proceed carefully when hiring new faculty. In some cases, a year was spent to find a team member who had the proper attitude and credentials to add to the synergism of this group.

Faculty members are encouraged to stay current with industry. Many of the Golf Course/Landscape faculty give seminars at state or national professional meetings. Attendance at major industry events is expected. The faculty travel within a 500 mile radius of Lake City in the summer to check on the O.J.T. students. This affords an excellent opportunity to get back to industry to learn what is taking place. College staff and program development funds have been extremely helpful in allowing the professional involvement necessary to keep faculty stimulated and current. The College fully appreciates that a strong faculty makes an institution work.

Strong industry support is a unique aspect of GCO. The program has an active industry advisory committee that monitors what is being taught. Some members have been on this volunteer group for over twenty-three years. These individuals were instrumental in formulating the first curriculum for the program.

The GCO program is a unique three-year A.S. Degree Program. The first year is primarily golf course mechanics followed by two years of horticulture, agronomy, and general education courses. The golf course mechanics module is extremely important and expensive. Turf equipment manufacturers and distributors loan the College

$250,000 to $500,000 worth of equipment per year so students can work on the latest models. Industry also supplies over $30,000 in scholarships to students in this division. The golf and landscape industries have benefitted from the graduates, and they eagerly help to keep the program strong.

The golf Course Operations program at LCCC is an outstanding example of the effectiveness of community college education. It represents industry and education working together to produce a professional product.

LEGAL ASSISTING TECHNOLOGY

University of Toledo Community and Technical College
2801 West Bancroft
Toledo, OH 43606
(419) 537-3314
President - Frank Horton
Contact Person - Dr. Nancy C. Robon

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: With almost 350 graduates, placement statistics show that those graduates who want to work in the paralegal field find employment. Data from last year's thirty-eight graduates indicate that 73.68% were working either full-time or part-time in the paralegal or paralegal related area and 47.37% were continuing their education either full or part time. Our Mock Trial Team placed second in the country in the National Intercollegiate Mock Trial Competition (1990). Additionally, our Mock Trial Team has finished first twice (1987 and 1988) and second once (1989) in the two-year college division of the competition. Two students were among the top ten student attorneys in the country; two other students were among the top ten witnesses in this competition. Graduates continue to take and pass the voluntary Certified Legal Assistant Examination in Ohio. Over 75% of the CLAs in Ohio are Toledo graduates. During three of the last four years, a Legal Assisting graduate was selected as the Outstanding Graduate of the College. During the last seven years, three of the College's outstanding alumnae/i have been Legal Assisting graduates (one a minority student).

EXTERNAL RECOGNITION: Designated a National Demonstration Program in 1974 by the American Association of Community and Junior Colleges (one of six nationally), the program continues to be a model for curriculum development nationwide. The Legal Assisting Technology Program was one of twenty-two Ohio programs to be awarded competitive Program Excellence Awards in 1988. Continued outstanding performance in the National Mock Trial competition has made our two-year team respected by the four-year colleges and universities. The program first achieved American Bar Association approved status in 1979 and was reapproved in 1985. Faculty continue to be national presenters on curriculum and mock trial.

UNIQUE CHARACTERISTICS: Having had the original survey for the curriculum developed in a collaborative effort with the Economic Committee of the Toledo Bar Association, the local bar continues to support the program by providing internships, faculty, and positions on the program's advisory committee. The local paralegal association supports the program with scholarships. Recent monetary contributions from the business and legal community enabled our Advocacy Mock Trial class to send eighteen students to regional competition in Memphis, Tennessee.

Included in the fall 1988 enrollment of 205 students were 17.6% minorities, 8.8% men, and 26.8% of the students were over age thirty. These students are drawn from all of Ohio as well as over 8% from Michigan.

The outstanding faculty is composed of a partner in a major Toledo law firm (formerly one of thirty U.S. Attorneys classified as a Senior Litigation Specialist nationwide and the former Assistant Director of the U.S. Department of Justice Advocacy Institute), the managing attorney of Toledo Legal Aid who serves in an advisory capacity on the Child Support Enforcement Committee to the Ohio Supreme Court, one Court of Appeals judge, seven specialist attorneys, four general practice attorneys, one specialist paralegal, and a Ph.D. who manages the program.

Students have their own courtroom, specialized legal software in a networked computer laboratory, one of the finest law libraries in Ohio, and computerized legal research capabilities. Students write a newsletter that is sent to students, alumnae/i, and friends of the program. Nationally-known speakers, brought in by the program, enable students to mingle with members of the local bar association in evening performances.

Alumnae/i as well as attorneys from Ohio and Michigan attend the Legal Assisting seminar series. The expertise of the faculty has enabled the Ohio Supreme Court to grant Continuing Legal Education Credit to attorneys who attend these seminars.

BUILDING COMMUNITIES: With almost a 100% increase in enrollment since fall 1987, new entrants are aware of the career ladder in legal assistant education that has been developed in northwestern Ohio. Recognized as a well-articulated program, over 50% of the students continue into upper-division programs in the University College and the College of Arts and Sciences. Articulated with the A and S Department of Spanish, bilingual legal assistant graduates meet a need within the community. Over 11% of the Legal Assisting two-year graduates are either enrolled in or have already graduated from law school.

SECRETARIAL/WORD PROCESSING TECHNOLOGY

Owens Technical College
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Toledo, OH 43699
(419) 666-0580
President - Daniel H. Brown
Contact Person - Sandra T. Laas

The advent of word processing challenged the secretarial profession and those involved in the training of secretaries. The acceptance of the challenge is evident in the implementation of change in curriculum, facilities, computerization, and integration of application software. Yet, department members did not lose sight of the need for maintaining traditional subject/skill areas. The program name is indicative of the merging of the traditional with emerging technology.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Students graduating from the program are in high demand and usually find positions prior to graduation. Graduates of the program attend professional secretarial meetings; currently one is serving as the president of the local chapter of Professional Secretaries International. Several of the graduates have either passed or are working toward the certification of CPS (Certified Professional Secretary.) A rigorous exam is administered for the certification.

The College is committed to follow-up of each graduating class to determine job success of graduates. An alumni data base is maintained which enables the College to track graduates' current addresses, positions, employers, etc. The department conducted a follow up study in Spring 1989. A questionnaire was mailed to the 294 graduates of the program; 164 graduates responded. From the responses, it was revealed that 32% of the graduates had either earned an additional degree or were currently taking courses. The graduates were invited to attend a reunion held for the secretarial alumni last April; over fifty attended. Faculty and administrators visited with graduates of the program and heard of their professional successes.

EXTERNAL RECOGNITION: Excellent assessment of program quality (especially for a program at a technical college) is placement of graduates in positions within their technical field. Such program quality is evident by the high placement rates of graduates over the years as well as the comments heard from employers of those graduates.

An additional assessment of the quality of the program is evidenced by the number of secretaries/word processing jobs called in by local businesses. The latest report released by the Placement Office revealed that during the first five months of this academic year, 214 job requests were called in by employers for secretarial/word processing positions. These calls by local businesses for students to fill positions are acknowledgment that the program turns out a quality product. Although the program

does not have an accrediting body to assess program quality, the College is accredited by North Central Association of Colleges and Schools and received a ten-year accreditation for its last report. The program receives funding through the State Department of Education, Division of Vocational Education and completes a program self study to receive such funding.

BUILDING COMMUNITIES: "The reading, writing, and computational ability of all first-time community college students (should) be carefully assessed when they enroll. Those not well prepared should be placed in an intensive developmental educational program." Success Seminars for new students are part of the admissions, orientation, and registration progress. They were developed by the admissions and counseling staff of the College to support students' transition into college and to provide the students with the information needed to be a successful college student. The ACT ASSET Assessment program is a step in the Success Seminar. All students are assessed in the areas of reading, writing, and numerical and basic algebra for placement into curriculum courses. Developmental classes in each of these areas are available to students who need to overcome academic deficiencies prior to registering for their required general education courses.

UNIQUE CHARACTERISTICS: Excellence in the curriculum is characterized by revision of curriculum and course content to respond to the changes in the secretarial field. Changes in textbooks, equipment, and software reflect changes in current office trends. The department maintains an active advisory committee; members of the committee make program suggestions and help keep faculty informed of new technical developments and job skill requirements. Program graduates return to participate in panel discussions and as guest speakers in classes.

Each student in the program is required to enroll in the internship course unless she/he has current secretarial work experience. The intern applies the knowledge and skills learned in the classroom to an actual job situation while acquiring new skills on the job that are difficult to simulate in the classroom setting. Placing students in internship positions establishes a liaison between the college and the business community.

Full- and part-time faculty meet regularly to evaluate and update course content, syllabi, and outlines and to assure consistency in course offerings. Such uniformity alleviates articulation problems in subsequent courses, since each section of a course covers the same amount of material and uses the same evaluation criteria. Course coordination between part- and full-time faculty is maintained through the use of standard syllabi and outlines. Student Course/Instructor Evaluation forms are filled out each semester by students in all classes to assist in determining teaching effectiveness. Results are consistently high, averaging between one and two on a one to four point evaluation scale. Students often comment that the instructors are professional and caring and that they help students to develop self confidence.

The College has articulation agreements with seven vocational school districts and five public school systems in the area. The articulation plan recognizes student achievement in vocational programs by providing for advanced placement. Steps have been taken and will continue to be taken to enhance transferability of Owens College credits to other institutions of higher education.

SMALL BUSINESS MANAGEMENT

Northcentral Technical College
1000 Campus Drive
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President - Donald L. Hagen
Contact Person - Fred Boller

Since its inception in 1987, forty-three students have enrolled in the Small Business Management Program at NTC. A survey of graduates indicates that about 89% are currently working, including about a dozen who have started their own business. These graduates have shown a high degree of staying power, since national statistics tell us that two out of five small businesses will fail within the first year. Their success, they tell us, can be attributed to NTC's Small Business Management Program.

The Small Business Management Program was cited in 1989 as one of fourteen exemplary small business programs in the country by the U.S. Association for Small Business and Entrepreneurship. The program was selected as a national finalist among outstanding model programs in entrepreneurship education at the adult, postsecondary, and community college level. It has been used as a model by other colleges looking at starting similar programs.

The Small Business Management Program addresses two recommendations contained in **Building Communities**.

a. Increase international perspectives in the curriculum. The Small Business Management Program currently serves seventeen Central American students as part of a Central American scholarship program. The students, who are here for two years, have added a new dimension to the program and to the school as a whole.

   International perspectives are also introduced through a required "International Business" course and through various optional workshops on world trade.

b. Ensure thorough training in communication, computational, and problem solving skills, as well as technical skills. Students in the program are required to fulfill a general studies core curriculum that includes communications, technical reporting, accounting, math, economics, and ethics.

NTC's Small Business Management Program is unique in several respects:

a. The program is set up to cater to the needs of working adults who need flexibility in scheduling classes.
    1. Half of the classes are offered in one-credit modules that are self-paced, open-entry/open-exit. Students set their own schedule for learning with the help of an instructor and audiovisual aids. The same modules are available at NTC's three regional campuses, so students don't have to commute long distances to our main campus in Wausau.

    2. Many Small Business Management classes are available over TV or on videotape that students can check out and play back on home VCRs. Other supporting courses are offered over the College's unique Interactive Television system that allows live give-and-take between students at our regional campuses and the Small Business Management instructor at our main campus. This further enhances learning opportunities for students who are confined to their own communities by family or work obligations.

b. NTC's Small Business Management Program is specially tailored to the students' own plans and goals. Every course is seen as a way to get a business off the ground, whether it's developing a business plan or arranging financing. Students can take just the classes they need or pursue the entire program, depending upon their own needs.

HONORS

HONORS INTERNSHIP PROGRAM FOR BIOLOGY STUDENTS

Mississippi Gulf Coast Community College
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President - Dr. Barry L. Mellinger
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UNIQUE CHARACTERISTICS: Honors Biology Students at Mississippi Gulf Coast Community College are gaining first-hand research experiences through a unique mentor internship program. This exemplary program, a cooperative effort between Mississippi Gulf Coast Community College and Gulf Coast Research Laboratory, began in the Fall 1988. It has provided cooperative internship experiences for thirty honors students.

The students are assigned to a researcher at the G. L. Scott Marine Education Center in Biloxi or the Gulf Coast Research Laboratory in Ocean Springs. The internship mentor program, the first of its kind in the College, provides the honor students under the supervision of an experienced researcher the opportunity to conduct research projects in Marine Physiology, Marine Chemistry, Marine Anatomy, Marine Ecology, and the development of educational materials for public school teachers. Students work at least four hours per week with mentors on these special projects in addition to the regular two hours of lecture on campus.

BUILDING COMMUNITIES: "The Classroom as Community" recommendations in **Building Communities** characterizes this program, for students are involved in the process of discovery in which they -- not the teacher -- are involved in collaborative projects. Such research opportunities are often afforded to only graduate students. Projects included construction of a beachcombing exhibit to serve as a learning tool for visitors at the Marine Education Center, identification of naturally occurring sea treasures, the effect of dredging on the marine macroinvertebrate community of the Mississippi Sound, and the reactions of aquarium-kept saltwater fish to various natural and artificial bait.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: The program's objectives include enhacing students' opportunities for transfer programs, competitiveness for scholarships, future employment, cooperative programs and research. The internship has resulted in the employment of graduates at the Gulf Coast Research Laboratory; enrollment in senior college cooperative programs; and scholarships to four-year institutions.

EXTERNAL RECOGNITION: The two-semester internship culminates with the students' research projects presented at the annual meeting of the Mississippi Academy of Sciences. Abstracts of the students' research projects are published in the MAS proceedings for distribution to its membership. Students also have won first place in poster competitions in the area of Marine and Atmosphere Division of the Mississippi Academy of Sciences.

The Gulf Coast Research Laboratory has world renowned scientists who conduct research primarily in marine sciences. The laboratory coordinator and mentors have emphasized the value of this cooperative effort in contributing to a more knowledgeable citizenry capable of making wise decisions relative to the preservation of the environment.

HONORS PROGRAM

Richland College
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Contact Person - Susan Nelson Miller

At Richland College, a student shares the experience of reading Ibsen's **Wild Duck** with her chemistry instructor. Another student discusses Ivan Ilyich's life and death with his brass ensemble teacher. At Richland College classroom furniture seems to move by itself into the large and small circular patterns necessary for group discussion. At Richland College faculty members regularly request assignments to join teaching teams in courses requiring extra preparation and reading time for no extra pay. Enrollment in a non-credit special topics seminar is double the expected capacity. This happens because of the Richland Honors Program.

The Richland College Honors Program was created in 1982 to serve the student who attends school for reasons beyond meeting specific career objectives; who is open to teaching and learning strategies other than the traditional lecture format; who wants to be challenged to examine her own value systems; or who wants a more intimate learning community where instructors are co-learners. With these students in mind, courses in the Honors Program are small, discussion-based, have a significant writing component and approach their subject matter from a unique perspective. For example, in our course list for spring, 1990, an English 102 course used **The New Yorker** Magazine as a tool to teach writing and critical thinking; a pre-calculus class used the collaborative method and group research assignments.

The first course to be taught in the Honors Program was a humanities course with the theme "On Being Fully Human." This course remains a part of the core department, the others from departments across the College, including administration. Our college president has been a team member twice. Richland calls this class "interdisciplinary," though it is not interdisciplinary in the traditional sense. That is, there is no unit or component of the course taught exclusively by one instructor. Instead, all instructors are present at each class meeting, sharing responsibilities in terms of initiating class exercises, facilitating discussion, and grading papers. But the unique aspect of this approach is that the instructors in the class often read the assigned literature with the class for the first time and join in the discussions as co-learners. Because of our success with this first course, we have developed a set of three interdisciplinary team-taught courses for the core of the program. Each of these has a central theme around which readings for the course are chosen. They are: Humanities 102 (On Being Fully Human), English 102 (Quest For Self), and English 204 (Quest For World Community Through World Literature).

Students who wish to become Honors Scholars will take two of the core courses plus an Honors Seminar, a logic course, and three other honors courses selected from at least two disciplines. Honors Scholars, eligible for full tuition scholarships, are recognized at graduation and awarded an Honors Scholar Certificate at a banquet in their honor. Students may also participate in the Honors Program by selecting any of the approximately thirty courses with Honors sections. Completion of any four Honors classes, plus the Honors Seminar, with grades of "B" or "A" will earn the student a certificate of commendation.

A committee made up of the program director and one representative from each division on campus reviews and approves all proposals for Honors courses. In the spring of each year, faculty are requested to submit to the Honors Committee proposals for Honors courses to be offered in the following academic year. Faculty are also requested to express interest in teaching on any interdisciplinary teams for core courses. Since the program began in 1982, approximately eighty full-time instructors and administrators have taught sections of honors classes or served on teams. Each semester between five and ten part-time faculty also participate. By teaching on teams, instructors come to appreciate as co-learners the value of the collaborative method and are likely to experiment with this method in their other classes. As a result we often see chemistry and math classes rearranging their furniture and breaking into small lively groups. Instructors comment how their teaching styles are changing because of their Honors experiences. The administration at Richland has long recognized the value of the Honors Program as a staff development and renewal tool.

The Honors Program attracts approximately 250 students each semester, about 10% of these completing certificate programs.

Many of the 4,000 students who have registered for Honors courses since the program began continue to stay in contact after leaving this College. Many of our Honors Scholars have successfully completed graduate degrees and credit the Honors Program with giving them the confidence and the analytical skills necessary for their success. Our reputation with the four-year institutions in our area is solid and many have established scholarship programs specifically for Honors Scholars. In 1989, three of our Honors Scholars received sizeable scholarships: one to the University of Texas at Austin.

The core of Richland College's Honors Program is excellence and innovation. Characterized by interdisciplinary, collaborative approaches, honors education at Richland offers non-traditional learning experiences for students and faculty who are seeking more involvement, relatedness and intellectual stimulation. Designed to challenge students to examine assumptions, develop questioning attitudes, refine communication and research skills, honors courses reflect the commitment of the College to promote life-long learning and to prepare students to be active participants in the global community.

HONORS PROGRAM

Suffolk Community College
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Contact Person - Lois C. Ambash

Building Communities adopts as its epigraph the following definition: "The term community should be defined not only as a region to be served, but also as a climate to be created." The Honors Program at Suffolk Community College deserves consideration as an exemplary instructional program both for its impact on individual students and faculty and for its positive influences on the institutional climate of the College.

The Honors Program, developed in 1983, incorporated several key elements in its design: intellectual rigor; an integrated, interdisciplinary approach to the liberal arts; sufficient flexibility to serve qualified full-time and part-time students regardless of curriculum and to be responsive to ongoing evaluation; adaptability to the varying needs and personalities of SCC's three campuses; transferability and articulation of honors courses; and practicality of implementation within various constraints imposed by the institutional structure and the faculty collective bargaining agreement.

The resulting program requires students to complete a total of six honors courses, chosen to meet Honors Program and individual curriculum requirements simultaneously. The program centers on four interdisciplinary core courses: "The Philosophical Perspective," "The Aesthetic Experience," "The Social Science Perspective," and the "The Natural Sciences" or "Mathematics/Computer Science." These four-credit seminars are proposed by faculty within generic descriptions and differ from year to year and among campuses.

Students also take at least two additional honors courses, consisting of honors sections of standard courses, independent honors work, internships, or alternative versions of the core seminars. Qualified students who choose not to complete the Honors Diploma Sequence may earn an Honors Recognition Certificate by completing fewer courses, or may enroll for selected courses of special interest.

Each honors course is characterized by use of primary sources; emphasis on critical thinking and creative application of concepts to new situations; seminar discussions requiring active participation of all students; and at least one major writing assignment requiring research and application of the literature of the discipline. Core seminars must also emphasize the interrelationships among academic disciplines, illuminate the similarities and differences in their respective modes of knowing; and provide historical perspective. Class size is limited to twenty.

Admissions requirements include a "B+" academic average, and ACT composite score of twenty-four or a combined SAT score of 1050; a satisfactory writing sample; a favorable letter of recommendation; and/or alternative evidence of academic talent.

The Honors Program has become a model within SCC of several elements of community outlined by the AACJC: outreach to adults; active and collaborative learning; faculty renewal; the college as a community of learners; and constructive cooperation with local high schools.

When the program was implemented in the fall of 1984, our tacit expectation was that most participants would be full-time day students of traditional college age, who would complete the entire sequence of courses. However, returning adults were attracted to the program in disproportionate numbers. Often admitted on the basis of "alternative evidence of academic talent" - such as previous performance at SCC or significant written work - these students displayed highly developed verbal skills and extraordinary capacity for abstract reasoning.

Day courses have been enhanced by the mix of traditional age and adult students, functioning as peers but bringing different perspectives to the material. A marked intellectual and personal camaraderie developed among students and faculty as the first cohort of evening students proceeded through the program. As a result, a proposal for a learning community for part-time evening students was presented to the National Collegiate Honors Council and was awarded a grant.

Project ALTA (Adult Learning and Teaching Alliance) provided for a "Master Learner" to accompany the students over four evening core seminars, doing all assignments, serving as a role model, and also teaching a one-credit interdisciplinary course each semester emphasizing critical thinking and interdisciplinary connections. Project ALTA heightened our awareness of the needs and characteristics of adult students.

Because honors courses are chosen through faculty proposals, they offer faculty a unique opportunity to teach courses in areas normally treated superficially as part of other courses. The opportunity to develop and teach courses such as "American Dreams: The Social Scientist in Search of a National Ideal"; "The Great Romance" (19th Century Romanticism); "Mathematical Applications in the Modern World;" and "Jewish Thought and Culture" has had a rejuvenating effect on many faculty, as well as on the entire curriculum.

To further enhance the sense of intellectual community, the Honors Program has for the past three years coordinated a lecture and book discussion series. Some two dozen faculty have presented a diverse array of common-hour programs, on topics ranging from boxing to **The Satanic Verses**, drawing as many as 100 listeners from faculty, students, and the community.

In 1988 and 1989, the Honors Program coordinated "MENTATHLON: A Competition for the Mind," an academic competition for high school students. MENTATHLON

originated at SCC's Eastern Campus, where it is now in its sixth year, and was adapted for the western area of the county. Some twenty-four high schools, 300 high school students, and thirty high school faculty participated each year in the two-day competition, along with some 125 SCC faculty and administrative volunteers.

We are in the process of preparing a survey of SCC graduates who have participated in the Honors Program, so our data at the moment is anecdotal. However, graduates have gone on to academic success at a variety of transfer institutions, including Cornell, Columbia, Rochester Institute of Technology, Syracuse University, and the University of Virginia. Several have entered teaching careers; others have gone on to graduate education in law, speech pathology, English, and social work; others are working in computer systems analysis, religious education, and accounting.

Honors articulation agreements exist between SCC and Fordham, Columbia, St. Joseph's College, and SUNY/Stony Brook. Students describe the program in terms of intellectual challenge and excitement, close personal attention, and creative teaching styles.

Formal recognition has come from the National Collegiate Honors Council and the VEA grant program through the grants described above. The program administrator has also been selected to offer a paper on "Honors Programs and Prior Learning Assessment: A Natural Connection," at George Mason University.

Less formally, but more meaningfully, high school guidance personnel in SCC's service area are recommending the Honors Program as an excellent choice for graduating students. Class rank and test scores of applicants have risen over the years.

HOSPITALITY

CHEF TECHNOLOGY

Cincinnati Technical College
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Contact Person - Peggy Harrier

The Chef Technology Program provides educational experiences for students leading to an Associate of Applied Business Degree and the attainment of immediate full-time employment in the food service industry. The program of study offers instruction in

all aspects of the culinary arts including soups,sauces, butchery, vegetable cookery, meat and fish cookery, pastry, hors d'oeuvres, ice and tallow carving, garde-manger, and all other fields of culinary management.

The program meets the needs of the student, the food service industry, and the community. The curriculum is designed to teach not only culinary skills but also management, communication and life skills that provide the potential for upward mobility within the food service industry. Through both instructional and cooperative education learning experiences, the student fulfills the goals of the program. Because the program has met the high standards set by the American Culinary Federation and the City and Guilds of London Institute, students may obtain certification by the A.C.F. as a certified working cook, and by the C.G.L.I. as a chef de partie.

The curriculum of the Chef Technology Program has been carefully constructed to comply with the Ohio Board of Regents' requirements for the Associate of Applied Business Degree and to incorporate the standards established by the American Culinary Federation and the City of Guilds of London Institute. The curriculum and course content are reviewed on an annual basis by the faculty and an advisory committee comprised of professional chefs from the food service industry.

The curriculum is organized in a sequential manner that allows students to move from basic cooking and culinary skill courses to the more advanced concepts and techniques. Classroom learning is reinforced through extensive laboratory experiences and simulated practice. This is accomplished, in part, through the operation of the program's formal dining room. The on-campus educational experience is further reinforced by the cooperative education program. Students are also required to take a professional practices course where they gain a working knowledge of what is required to obtain employment and what is important to have a successful work experience.

To achieve the goals established for the program, students are required to take courses in mathematics, communication skills, social sciences, and business. The technical core of courses, coupled with general education and business courses, produce a student who is able to function effectively in a total business and social community.

Students enrolled in the Chef Technology Program come from a wide variety of backgrounds. They include recent high school graduates, displaced workers, women returning to work, vocational rehabilitation students, and even graduates from baccalaureate programs who are changing careers.

Enrollment in Chef Technology has grown significantly since the inception of the program. In 1979-80, the average enrollment per term was twenty-four students. This has increased by 267% to an average of sixty-three students per term in 1988-89.

Over the ten-year history of the program, fifty-nine scholarship awards have been made to students in the program totaling some $31,000. These awards include scholarships from foundations, professional associations, and private corporations

which further demonstrate the commitment of the business and professional community to the program and their confidence in our students.

Each year faculty are evaluated by students using the College's instructional appraisal form. The instructional and coordination evaluation rankings of the three faculty are among the highest of the College. In 1988-89, students rated the three Chef Technology instructors in the upper 20% of the entire college faculty.

Students in the Chef Technology Program have competed in local and regional culinary competitions under the guidelines established by the American Culinary Federation. A total of thirty-eight medals and trophies have been won on either an individual or team basis.

Upon completion of the program, students are eligible to sit for the Comprehensive International Certification Exam of the City and Guilds of London Institute for the Cookery and Catering Industry Parts I & II. Since attaining accreditation from the G.C.L. I. in 1984, seventy-three students have completed the examination part I. All have successfully passed one or more parts of the exam and fifty-eight (79%) have passed the entire exam.

The exam part II, which is significantly more advanced, has been taken by fifty students and thirty-four have passed it. In Europe this exam typically would be taken by a student who has had three years of technical training.

Virtually 100% of all students graduating from the program have been employed upon graduation. Of those responding to college surveys, 89% indicated that they were employed in their technical fields. This rate exceeds the institutional average. In comparison, rates reported by the state of Ohio indicate that approximately 77% of graduating students during the same time period were employed in their technical fields.

The Chief Technology Program at Cincinnati Technical College was selected as one of three original sites to go through the new accreditation process established by the American Culinary Federation. Cincinnati Technical College was selected at the recommendation of L. Edwin Brown, the Executive Director of the A.C. F., because in his opinion, "the Cincinnati Technical College Chef Technology Program exemplifies the highest standard of culinary education." He believed "its accreditation could serve as a national model." As a result, the program has received an excellent evaluation on both its self-study and the site visit, and was awarded a five-year accreditation. Currently, only twenty-six culinary programs have been accredited by the A.C.F. representing 3,874 students nationwide.

The five-year review conducted by the State Department of Education in May, 1987, was very positive. The enhancements to the curriculum, the facilities and equipment of the program were highly praised by the review committee. The College has a ten-year accreditation from the North Central Association.

CULINARY ARTS, FOOD AND BEVERAGE MANAGEMENT

Grand Rapids Junior College
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Contact Person - Robert Garlough

The instructional program being submitted for NCIA consideration as exemplary are the Culinary Arts and Food and Beverage Management Programs of the Hospitality Education Division at Grand Rapids Junior College. Both are two-year associate degree programs based on a common core of freshman courses with specific specialty course emphasis in the second year for each curriculum.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: The successful placement of graduates and the growth of their careers have been demonstrated in several ways:

A. Approximately 99% of the graduates in the past eight years have selected positions in the hospitality field.
B. Over 98% of the graduates have remained in the hospitality industry and have advanced to positions of supervision and management.
C. The demand for graduates to fill career positions and hospitality students to work part-time remains strong as the Director of Hospitality Education receives several requests weekly to fill foodservice related positions.
D. Virtually all of the local private clubs, fine dining restaurants and corporate foodservice operations pursue graduates.

EXTERNAL RECOGNITION:

A. The National Restaurant Association and the American Vocational Association named Grand Rapids Junior College's Culinary Arts and Food and Beverage Management Programs as the best post-secondary food service programs in the nation in 1988. There were nearly 500 post-secondary programs eligible for the award.
B. The programs have also been selected as the best in Michigan and as one of the top six in the nation every yeaf since 1984.
C. After a lengthy in-depth study of both programs in 1987, The American Culinary Federation Educational Institute accredited both programs. This was the first college foodservice program accredited in Michigan by the American Culinary Federation Educational Institute (ACFEI) and the eighth in the nation. There are presently twenty-six programs accredited by the ACFEI.
D. Many businesses and organizations have recognized the excellence of the college's hospitality programs by giving scholarships, financial aid, equipment or dollars.

The Hospitality Education Division Advisory Committee composed of business and industry professionals have consistently given the programs high ratings on three extensive evaluations completed over the last nine years. Present students and graduates have also rated the programs as "very good" through a formal evaluation process.

BUILDING COMMUNITIES:

A. Goal: The student should be proficient in the written word.

1. A typical student enrollment in the Hospitality Education Division programs each year brings a population of individuals eighteen to fifty years of age, with education from high school dropout (GED) to college graduate and with little or no experience in the hospitality industry to many years experience.

   An initial goal of the director and faculty is that new students will be given the skills to make them productive in their chosen profession. Consequently, a number of approaches are taken to test readiness and also teach these skills.

B. Goal: Programs should be career-related and prepare students for the industry.

1. Extensive laboratory facilities provide multiple opportunities for hands-on training. Facilities include a public restaurant, a retail deli-bakery, a commissary and a conference center.
2. Students do an actual on-site health inspection as part of a sanitation course which certifies them by the state of Michigan and the national organization, NIFI.
3. Students participate in a 240 hours cooperative education experience with an industry operation.

C. Goal: The college should build community beyond the classroom.

1. As part of a Grand Rapids Junior College 75th Anniversary celebration this academic year, students produced a world record cherry torte which was served to approximately 2000 people at a community open house and pig roast.
2. The Hospitality Education Division annually co-sponsors a "Tree of Lights" fund-raising community breakfast for the Salvation Army, and the "Celebration on the Grand" community breakfast for the City of Grand Rapids.
3. The Junior Culinarians and the International Food Service Executives Association student clubs annually prepare dinner for the homeless and a jazz brunch to benefit the Santa Clause Girls.
4. The division hosts and co-sponsors with the Grand Rapids Press the Grand Rapids Press Cook-Off for non-professionals.

UNIQUE CHARACTERISTICS:

A. A strong culinary emphasis in both programs has resulted in many awards for students and the college. Examples are:
   1. A team of graduates and three faculty competed in the 1988 World Culinary Olympics in Frankfurt, Germany and came home with eleven medals. The College was the only college in the United States to sponsor a professional team.
   2. Grand Rapids Junior College has been selected as one of only four regional United States training sites for the 1992 World Culinary Olympics, hosting chefs from a twelve state region.
   3. In the past eight years, students competing in regional, state and national culinary salon competitions have been awarded over eighty medals.
   4. The IFSEA student club won the Michigan Traveling Trophy for two out three years of competition at the Michigan Madrigal Dinner Culinary Art Salon.

B. The programs have developed strong linkages with business and industry as evidenced by the following:
   1. Faculty members appear monthly, year round, on the local NBC affiliate, WOTV program called "Taking Time" with food and nutrition demonstrations or arm chair talks.
   2. Yearly, in late January, sophomore students invite business, industry and media people to enjoy and evaluate a nine-course meal.
   3. The McCabe Marlowe House hosts small groups from the community for dinners or open houses, often hosted by the college president. Hospitality students prepare and serve these groups as paid student employees of the College.

C. The Hospitality Education Division faculty have continued to improve themselves through professional development and continuing education to better serve their diverse student population and the community.

D. Staffing and qualifications of the division are exceptionally strong:
   1. The division enjoys a good teacher/student ratio of approximately 1/22 in lecture courses and 1/15 in laboratory courses.
   2. The full-time program director does not teach in order to allow for full attention to program administration. Additionally, the division employs a full-time secretary, full-time instructors and six adjunct faculty for 160 students.
   3. Faculty credentials for each instructor include managerial work experience in a variety of foodservice positions, as well as degrees in applicable programs of study related to their area(s) of instruction.

FOOD SERVICE PREPARATION

Passaic County Community College
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Contact Person - Jennifer Proper

Anthony came to us as a single father with no prospects of supporting his young family. Following graduation from our program, Anthony was hired at an entry level assistant cook position; as soon as a vacancy become available he was promoted to management. He has since opened his own successful catering business.

The president of the New Jersey Restaurant Association has been on our advisory board since the program started. He and other advisory members have been instrumental in helping develop the current curriculum. Our graduates have also been employed in his restaurant. The hiring of our graduates in the food service industry is the final measure of our program's external success and recognition.

The Food Service Preparation Program at PCCC nurtures our students and offers each a chance at success. Due to the fact that the majority of our students are socially and economically disadvantaged, they need a counselling component within our program. We offer a weekly class session with a college counselor which provides for our students social discussion and personal growth. Students continue to work toward improving their basic reading and math skills as an integral part of the program. Graduates are ready and prepared to meet the professional and personal challenges of the food service industry.

The program was designed to accommodate the needs of displaced workers, single parents and the disadvantaged and underemployed. By offering the program both during the day and evening we can reach the largest segment of potential students.

Recruitment efforts have resulted in attracting all age groups (eighteen to seventy-two) as well as students of diverse racial and ethnic groups. Through our involvement with local high schools, we are asked to attend career days and make classroom presentations about the food service industry.

The program has reached out into the business community, offering students an every day look at the work site. Business leaders are invited in as guest speakers to discuss various topics as related to the food service industry.

Classroom instruction and "hands on" experience are conducted in sixteen week cycles of 640 hours.

The goal of the program is to prepare participants for entry level positions in the food preparation/food service industry. Objectives include: to identify and train students in culinary arts and food preparation skills; and to place those students in entry level jobs in the food service industry. It is expected that the attainment of these goals and objectives will serve to demonstrate the value of utilizing the resources of an established urban community college to link a largely under-served, under-employed population with a viable skills training program leading ultimately to gainful employment.

Students demonstrate their knowledge of the importance of hygiene and personal grooming in food service by changes in their own appearance and grooming. Students receive instruction in production kitchen skills, cafeteria skills and bakeshop and are required to prepare, to the instructor's satisfaction, sample food in each area. Using Passaic County Community College's professionally equipped kitchen, students rotate through the following content areas:

Production Kitchen Skills: Students receive a strong foundation in the basic concepts, methods, and chemistry of cooking with exposure to all facets of food service operations, equipment, tools and menus. Emphasis is placed on lecture, demonstration and "hands-on-experience" of food production. Basic menus are carefully chosen to demonstrate and improve students' developmental skills in food preparation. Development of skills in all work situations is required and obtained through student rotation of kitchen stations. Concentration is placed on basic knife handling techniques to develop necessary skills for food production. Emphasis is placed on basic vegetable cuts such as julienne, dice, mince, peel or pare, shred, slice and brunoise. Students obtain knowledge of time and temperature in cooking various meats, fish, poultry, starches and vegetables. Skills are developed in proper plating, garnishing and presentation of all food items. Students gain the ability to recognize and identify basic sauces and start preparation of basic sauces as they appear on the menu. Skills in using spices and herbs and understanding their role in food preparation are taught.

Cafeteria Skills: An introduction to the preparation and production of breakfast cookery includes eggs, omelettes, breakfast meats, potatoes and hot and cold cereals. Students experience the pressures of short order cooking. Students obtain knowledge of time and temperature in the preparation of broiled, poached, scrambled, fried, eggs and omelettes. Skills and techniques are developed in the preparation of meat products such as sausage, bacon and ham.

Students also receive an introduction to the preparation of various salads, salad dressings, cold sandwiches, cold soups, marinades and cold sauces.

Bakeshop: Students are introduced to the preparation of basic quick breads and rolls and basic desserts.

A college counselor works closely with the program coordinator in monitoring the success of each student. With ready access to the resources available at the College, the following workshops are offered:

Career Counseling: Using video tapes, role playing and other dynamic techniques, students are taken through the process of self assessment, career exploration, career identification and counseling relative to testing their choice in the work world.

Pre-Employment Workshop: A workshop is conducted in collaboration with the coordinator on job seeking, resume writing, interviewing and attitudes needed for job retention.

Computer Workshop: Students use an Apple II to work on projects related to the food service industry, such as menu design and inventory control.

TRAVEL/TOURISM

College of DuPage
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Contact Person - Jean Ford-Woodcock

Twenty years ago, College of DuPage introduced the Travel and Tourism Program with the vision of things to come. It was the first travel and tourism program inside of the education environment for certificate credit and degree. The founder of the program, a travel industry professional, envisioned the future of travel and tourism and commenced the program with the intention of providing trained graduates to an industry that would impact the future shape of the world.

Over the last twenty years, the College of DuPage Travel and Tourism Program has increased from fifteen enrollments in 1969 to 6,500 enrollments annually. The course offerings in 1972 consisted of five courses offered in the technical arranging of travel. Today, thirty different courses are offered in the areas of technical travel arranging, a variety of airline computers, airport passenger services, meeting and convention planning, tourism motivation and behavior and impacts of tourism on contemporary and future societies. Sixty classes are available each week, day and evening, making this the largest travel and tourism program anywhere.

Airlines and travel agencies list themselves with the Travel and Tourism Program to receive graduates as they leave the program. Follow-up studies show College of DuPage travel and tourism students are employed in airlines, travel agencies, cruise lines, train companies, foreign consulates and many other travel industry areas. Many

students have returned to their home countries to work in travel careers after completing the certificate or degree.

Outside airline companies and travel agencies have cited the Travel and Tourism Program as the most influential in providing trained graduates to the external travel/tourism environment. Many other community colleges have instituted programs based on the program and requested and received help in their endeavors. The United States Government has recognized the Travel and Tourism Program, including the international tourism certificate development in a grant. The program is recognized by the American Society of Travel Agents (ASTA), and Arizona State University has articulated with the program recognizing it as the largest travel program in the United States.

The effect of the program has been to create an atmosphere of cooperation with community travel agents and community members. The information in many of the travel and tourism classes has helped the entire community understand the way in which tourism is impacting the changing world and their own lives. Provisions are made in the program for future invention processes which aid community groups and individuals to envision future goals and give them tools to reach them.

The program has several unique characteristics: It places more than forty interns every quarter into the travel industry where students and industry have a unique opportunity for future employment. This is the largest internship program in the College. The internship program has just been extended to include internships in England, in the Manchester and Chester areas. In England, The Westcheshire College and the Chester County Council are involved in a joint development of internship possibilities for College of DuPage travel students. Arrangements have just been completed for tourism students to travel to Westcheshire College where they will study the European community development and European ticketing and fares. In addition, the Westcheshire College vice principal is sending a representative to study the College of DuPage travel program in order to copy its innovative teaching and learning approach. Another remarkable collaborative effort is that of DePaul University and College of DuPage joining in a four-year degree program. The degree requires that the first two years be completed with the College of DuPage program. This provided the first four-year degree in Illinois with travel and tourism as a major.

The program's instructors are industry professionals currently working in their field of expertise. The pattern has been to hire many part-time instructors because of the current information and job vitality brought directly from industry to the students. Many teachers hold classes during the course of the quarter on site at airports and travel agencies and on board buses as an effective learning approach. Airline computer classes are taught on live systems and simulations to provide skills in required areas. In the final analysis, the teaching approach which works best for the learning approach is to treat students with dignity and care and to provide state-of-the-art and, where possible, transferable skills.

TRAVEL / TOURISM

Massachusetts Bay Community College
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Contact Person - Ed McCourt

Soon after the publication of **Building Communities** the Travel and Tourism Department at Massachusetts Bay Community College set out to incorporate into its goals the recommendations of the AACJC report. In the nearly two years since the release of the document, the department has made significant strides in broadening the scope of its mission. The major focus continues to be student preparation for entry into a travel industry career. Nevertheless, this is now done within a context of greater outreach, expanding partnerships and broadened services.

To a large extent this transition has been helped along by travel industry trends. Fewer U.S. industries encountered as much development in the eighties as travel. Airlines went through a deregulation process that dramatically changed the size and character of the U.S. airline industry. The cruise industry witnessed an average 15% annual growth rate throughout the decade. The travel retail sector was transformed from one of primarily small to medium sized businesses to one heavily dominated by a handful of large efficiently run, mega corporations. All of these developments have increased both interest in the travel career and an industry demand for properly trained personnel. Simultaneously, they have created a need for more highly trained entry-level employees.

In response to heightened career interest and the personnel demands of the industry, Mass Bay's Travel and Tourism Department expanded its traditional fall/spring semester, day-time offerings. In the summer of 1988, a ten-week intensive, day-time program was initiated. That fall, the department began a thirty-week, evening program. This past January, an eighteen-week, intensive day-time option was initiated. In the 1987-88 year, Mass Bay's Travel and Tourism Department prepared approximately twenty-four students for the travel career. This year, the department anticipates preparing forty-nine students.

Clearly, the Travel and Tourism Department was able to respond to marketplace demands. More significantly, however, it did so through a process of outreach. The summer, evening, and intensive daytime programs have made travel career training possible primarily for non-traditional students -- displaced workers, those seeking career change, mothers looking to reenter the workforce, retirees, etc. For example, each of the ten students currently enrolled in the department's evening program is preparing for the travel career while maintaining daytime jobs.

Since the fall of 1988, Mass Bay's Travel and Tourism Department has used a variety of partnerships to promote interest in travel as a career. Alliances with area high school guidance departments have been strengthened. Direct mail pieces regularly go out to counselors announcing upcoming travel career presentations and offering travel lab facilities for demonstration purposes. Industry representatives regularly come in for evening seminars that are attended by students and those in the community who want information about a travel career. For example, American Airlines provided the department with a sales representative, a flight attendant and an automation specialist to offer an audience (of seventy-five) perspectives on the airline industry and its spectrum of career. An audience of forty turned out to hear a local motorcoach tour operator discuss the logistics of tour operations and employment possibilities in tour escorting, sales and marketing.

An additional benefit of the evening seminar series has been an enhanced sense of community for all of Mass Bay's Travel and Tourism students. Department seminars have done much to promote a sense of belonging among the department's students.

An additional Travel and Tourism Department partnership also has fostered this sense of community. First in the fall of 1988 and again in the fall of 1989, Travel and Tourism students joined with students in the College's Licensed Practical Nursing Program to present an international fair for the college community. The nursing students, largely minority and/or of third-world origin, prepare nutritionally sound recipes from their regions or native lands. Travel/Tourism students work with these students and national tourist offices to prepare displays and to provide appropriate details about travel to these countries. An excellent spirit of camaraderie develops both between these two groups of students, and during the event, among all students on campus.

Partnerships also complement the classroom educational experience. The evening seminars interest new students in the travel career. For program students, however, they provide additional industry perspectives and clarify career options. Program students also benefit from department partnerships with local travel companies that provide field experience opportunities. In the past year, AAA - Massachusetts has provided internship opportunities for fifteen Mass Bay Travel and Tourism students. For the spring of 1990, the Travel Related Services Division of American Express provided five such opportunities. In many cases, successful internship experiences have led to permanent employment for program graduates.

These industry partnerships are not all one way. Increasingly, Mass Bay's Travel and Tourism Department is providing educational services for a variety of areas travel interests. For example, since 1988, the College has hosted travel counselor training sessions for TAP/Air Portugal, for QANTAS Airlines/Australian Tourist Commission and for Princess Cruises. And, because the department has a live link to its SABRE computer reservations system, American Airlines regularly uses the ten CRTs in the department's travel lab to conduct training for area travel agents. Since 1987, the College has alternatively hosted and conducted certification and destination training programs of the Institute of Certified Travel.

Agents (ICTA) for area travel agents. All of these offerings have broadened the College's Travel and Tourism offerings and brought it into the area of continuing education for the travel industry.

Clearly, through its outreach, its partnerships and its broadened offerings, the Travel and Tourism Department at Mass Bay Community College has expanded its mission. In doing so, it is building community in a fashion very much in line with the 1988 AACJC recommendations.

INSTRUCTIONAL APPROACHES

ACHIEVEMENT PLUS

Kalamazoo Valley Community College
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Although diverse in its local identities, one common ideal has pervaded the community college movement in the United States: to provide access to higher education to all of its citizens. Mere access is, however, no longer sufficient. No longer will communities accept the "right-to-fail" doctrine, and rightly so: profoundly optimistic alternatives exist.

One such alternative is advanced by Benjamin S. Bloom and John D. Carroll who argue that 95% of a population can master any body of learning provided that the three most potent factors accounting for academic achievement are in place--if the learners possess an adequate pool of prerequisite knowledge (Factor I), if they possess productive affective characteristics (Factor II), and if barriers to their learning are eliminated from their learning environment (Factor III).

With that goal of a 95% success rate as a goal and the three factors as an organizing principle, the KVCC administration established an instructional work group (Achievement Plus [A+]) to operationalize a model to achieve that ideal. The A+ staff designed a one-year curriculum incorporating the three factors: Factor I to assure that A+ students possessed an adequate pool of basic knowledge when they entered the mainstream; Factor II to assure that they possessed productive study habits, attitudes, and behaviors; and Factor III to assure that the institution removed barriers and opened doors where necessary.

Factor I activities are characterized by attention to instructional design considerations governed by students' needs for small sequential, cumulative steps of increasingly complex learning in a supportive environment. A competency-based approach to the acquisition of knowledge in math, reading, English, and critical thinking assures students of a broad and deep pool of basic academic skills. Their needs for individual instruction are met with peer tutors and collaborative learning methods. Their instructional materials meet rigorous design requirements. The College's Teaching-Learning Center helps to link Factor I to Factor III by supporting research in collaborative teaching methods in math by one of the math faculty.

Factor II activities are characterized by an image of a pebble dropped into the center of a quiet pool as A+ attempts to widen its students' definition of community. The students begin in the weightlifting room. One's personal well-being and physical fitness are at the center of relationships to others. If one does not value one's self, it is unlikely one will value another. The circle widens as they move from the weightlifting room to the gymnasium where activities in relationship and trust building occur among classmates. Next, they encounter significant members of the college faculty, staff, and administration. The outcome of these activities is the selection of campus mentors who make themselves available for an array of academic and moral support. The broader community is represented by significant leaders in the community led by a retired circuit court judge and community leader who serves as mentor-in-chief to A+. Finally, A+ students combine an adversity experience with a public service project: the first cycle contacted local families who have loved ones' names engraved on the Viet Nam War Memorial. On their adversity trip, they visited the Memorial and took rubbings from it. They preserved the rubbings, framed them, and presented them to the families when they returned. The students repeatedly affirmed that their connectedness to the community was made stronger by that experience.

The A+ staff recruited a potentially worst case population of eight students for the fall of 1988. Previous research had projected them to earn only thirteen credit hours with G.P.A. of 0.81 over a two-year time span. The research which led to that projection, a four-year longitudinal study of 886 developmental English students, revealed that their best case peers in the same time span earned thirty-nine credits hours with 3.01 G.P.A. If the A+ population were truly representative of the nonachievers of the research, then the outcome measures of success would be straight forward earned credit hours and G.P.A.s.

By the standards of the nonachievers of the original study, A+ students placed off the scale. Eight of eight returned for a second semester, and seven of eight returned for the second year. G.P.A.'s match the 3.01 of the achieving groups of the original study. Speaking louder than the objective data, however, are the public appearances of the A+ graduates as they pass the word to incoming A+ students. Their enthusiasm and support exceed the highest expectations of the A+ staff. Thirty-six students were recruited from such constituencies as Head Start mothers, various minority

communities, blind rehabilitation, vocational rehabilitation, and of different age, sex, and race for the fall of 1989; thirty-four of whom enrolled the second semester. Plans are underway to recruit eighty students for the fall of 1990.

The A+ faculty is drawn from many disciplines. Eight instructors have demonstrated track records as master teachers who are especially skilled at working with at-risk students, although their primary assignment is teaching college level courses.

The knowledge generated by this project is invaluable in the design and management of developmental education programs. We now know the direction and extent of intervention necessary to assure success for marginal students. Difficulties arising from disorderly domestic lives, poverty, self-doubt and discouragement, low self-esteem and the absence of supporting networks, drug and alcohol abuse, and less than total commitment to their new life course all require conscious intervention by the College. We know that the commitment the College makes to assure the success of its marginal students transcends the principles of mere access.

The highlights of the project have been presented in 1989 to the LAND Conference in Michigan; to the AACJC National Conference, Washington, D.C.; and to the NISOD Conference in Austin, Texas.

BASIC EDUCATION

Nassau Community College
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President Dr. Sean Fanelli
Contact Person - Dr. Myrna Skidell

The Basic Education Program is unique to developmental education. Unlike usual institutional practices of dealing with underprepared freshmen through loosely joined remedial/developmental courses offered by individual departments, it is an integrated program consisting of three components: reading, English (writing) and mathematics, as well as a counseling seminar and a computer lab which addresses individual student needs in each academic discipline.

Student composition is diverse and includes non-traditional, as well as college-age freshmen. The program also services growing numbers of learning disabled students who need specialized instructional methods. The ethnic composition is representative of the community served by the College.

Approximately 10% of entering freshmen test into the program. Sixty-one percent of those who test into it enroll and participate in the program. This percentage indicates that confidence in the program was instilled at the orientation, since the program

carries no credit and requires a minimum one semester commitment. At present, 85% to 87% complete the program. The program conducts an ongoing self-evaluation which uses both quantitative and qualitative information in order to examine student outcomes and refine instruction. Results of surveys from teachers who instruct post-BEP students indicate that 75% of these students do as well as, or better at the next course level than their peers who did not evidence a need for the program. In addition, pre and post student surveys indicated that while at the beginning of the program 73% of the participants felt negative about their placement, at the end of only one semester, 71% felt that the program was worthwhile, and 70% felt that it helped them understand what was expected of them.

During fall semesters, we service approximately 400 students. In the Spring, enrollment drops significantly. In order to ameliorate the problem of a disproportionate ratio of part to full-time faculty caused by the enrollment, we have a complement of full-time temporary instructors who work only in the fall. They are experts in their respective disciplines, have developmental education experience, and are totally committed to the program. Other part-time faculty attend an orientation, receive guides which reflect program philosophy and content, and are assigned mentors to help "bond" with the program. These faculty are formally observed and return in subsequent semesters.

Instruction is language-based. Students are not taught basic skills in the traditional sense, even though the "basics" are an important component of their learning participation...of active learning. This breaks many of the old patterns of teaching the underprepared, which include the mastery of discrete skills in isolation. Our students "learn to learn". They are first made aware of a need to "revalue" themselves as learners. Then they are taken through a process of growth in the skills needed to be literate in an information bombarded society.

For example, the reading component emphasizes strategies to enable students to make meaning from what they read. All aspects of language are integrated; reading, writing, speaking and listening. The English component deals with writing across the curriculum. Students are encouraged to generate their own ideas in response to what they see, hear and read. The mathematics component uses a problem solving approach to help students learn fundamental arithmetic concepts. The goal is to empower students to think for themselves and develop strategies to help them reason logically.

Assessment of student gains is creative, extensive and ongoing. Students participate in out of class conferences, keep journals and are responsible for long term projects; in addition, they must exhibit evidence of learning on traditional testing instruments.

The Basic Education Program is beginning to receive recognition in our own institution as well as externally. Throughout each semester, a **BEP Newsletter** is published campus-wide. Our faculty attends and presents at professional conferences. The reading faculty has been invited to present its component at the New York State Reading Association Conference in November 1990.

CENTER FOR THE VOCATIONALLY CHALLENGED

Grossmont College
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Contact Person - Scott L. Barr

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Over the last three-years, Grossmont College, through the Business and Vocational Education Division, has developed and installed a center for the disabled which is unique to the California Community College System. The Center for the Vocationally Challenged (CVC) occupies two buildings totaling 5,000 square feet, trains eighty and serves over 500 disabled or disadvantaged students annually, and employs fourteen full-time and two part-time staff.

The comprehensive Center is capable of offering training or services that meet individual needs for a wide spectrum of disabled women and men, including blind and visually impaired, deaf and hearing impaired, severe cerebral palsy, learning disabilities, orthopedic disabilities and spinal injuries.

Over 85% of the graduates are placed into jobs with excellent career-ladder potential and an average starting salary of $18,000 to $24,000.

EXTERNAL RECOGNITION: Since January, 1987, when the first computer training program began at the Center for the Vocationally Challenged, dozens of articles have appeared in all three area newspapers, i.e., **The San Diego Union**, **The San Diego Tribune**, and **The Daily Californian**. In addition, articles have appeared in business and rehabilitation journals and local company newsletters. CVC programs have been featured three times on prime-time local news. In March, 1990, the **Grossmont/Cuyamaca District Digest**, a quarterly periodical, highlighted the CVC.

In the Fall of 1989, the Accreditation Review Team for Grossmont College gave a special commendation of excellence for CVC instructional programs. Also, at the Employment and Training Association of California Fall Conference, CVC programs were publicly acknowledged by the ETAC conference coordinator as the "best employment and training programs in California."

Approximately sixty data processing and business executives representing forty San Diego area companies serve on the Center for the Vocationally Challenged Business Advisory Council (BAC). The CVC BAC, with the State Department of Rehabilitation and Grossmont College, direct the development of trainees into candidates for the job market. The BAC and its operational committees meet several times a month, providing expertise for curriculum development, student selection and periodic evaluation, classroom instruction, center publicity and promotion of

internships and job placement. In addition, each trainee is assigned his/her own personal industry mentor to support transition into the business environment.

UNIQUE CHARACTERISTICS: Enabling disabled individuals to secure and maintain employment as competitive business applications programmers and PC Specialists is the ultimate goal of CVC instructional programs. Therefore, program procedures, performance standards and equipment are all designed to stimulate those of industry. By doing so, trainees are exposed to "real world" experiences in an educational setting.

To simulate business protocols, trainees are expected to conduct themselves while in training as if they were an employee of a data processing or business firm. Professional dress and grooming are encouraged. Trainees are required to be on time and to notify appropriate personnel of absences. Instructors are identified as trainers/managers.

COMPUTER ASSISTED WRITING

Seminole Community College
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Contact Person - Bruce Authammer

Since 1983 The Seminole Community College English Department has been offering college credit English courses which integrate microcomputer word processing and the writing process. The phrase, Computer Assisted Writing (CAW), is used to designate the approach. Since writing proficiency is absolutely necessary for students to succeed, the goals are to admit how difficult the tasks involved in writing are; to show how microcomputers can assist a working writer in accomplishing those tasks; and to enhance such integral writing processes as brainstorming, note-taking, drafting, revising, documenting, and editing.

Students enrolled in arts and sciences courses are encouraged to use the Writing Center on a walk-in basis. Most students, and many of our faculty and staff members, have done so. A true sense of collaboration among the writers has created a highly supportive environment. The facility is literally a center, not a lab. Few drill type writing activities for microcomputers truly improve student writing; writing improves writing. The sixteen Apple IIe's and fourteen Macintoshes, each attached to a printer, are used for writing almost exclusively. The same will be true for the just-ordered English Macintosh classroom. Students are proud of the quality of the papers they submit to instructors.

The state of Florida and FACC have seen fit to grant awards of excellence for curricular and instructional innovations.

The two new courses (CAW I and CAW II) are taught entirely on microcomputers in the Writing Center. The first focuses on learning how to use microcomputers and word processing software integrally with the various writing processes. The second teaches Desk-Top-Publishing while maintaining the rigors of fine writing. The traditional course offerings now incorporate orientations to and assignments accomplished in the Writing Center. The two college preparatory courses require one extra hour in the WC each week. During that hour students work with language and computer tutors. The English I and English II courses formally incorporate the Writing Center to the degree desired by the individual instructor, but records indicate that the majority of English I and English II students use the facility extensively. Technical writing, creative writing, and journalism courses use the micros as an integral part of instruction. Courses in other disciplines use the center as writing across the curriculum efforts are extended. The advent of Desk-Top-Publishing has attracted numerous new users from
other disciplines.

As writing is taught with the assistance of computers, faculty have realized that the natural end-product of writing is publication and/or presentation of information-rather than merely the creation of documents in manuscript form. Thus, desk-top-publishing fits into the department's Computer Assisted Writing curriculum. Therefore, the second course in this sequence, CAW II, focuses on publication and presentation. Presently DTP instruction is included in second level writing courses.

In varied formats, CAW II has been offered to area K-12 instructors and to the honors high school students. The first effort was an exciting one week "forced march" which met during the Summer Term. Each K-12 teacher selected assignments appropriate to actual teaching needs. The class started on a Wednesday afternoon, and by the following Wednesday afternoon, the students had produced fine and exciting works. Contact is maintained with these teachers to inform them of improved equipment and to invite them to return to the W.C. A good relationship has been established, and additional workshops will be offered each year.

The second special version of CAW II was a four-week program funded by the Governor's Summer Program for Honors high school students. This course is an integral part of an exciting interdisciplinary program including philosophy and ethnographic research which focuses on the history of Seminole County. The end products were two publications, the first of which has been sent to each high school in the district, the SCC library, the county library system, and the historical society. The second book, a compilation of responses to student interviews, was given to each of the students.

Additional practice in Computer Assisted Writing is available during hours other than class time. The Writing Center is staffed with dedicated instructors and tutors who offer as much one-on-one instruction as possible.

EDUCATIONAL ADVANCEMENT

Crowder College
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Contact Person - Dr. Judith Hansen

The Educational Advancement Program at Crowder College builds relationships among four communities addressed in the report of the AACJC Commission on the Future of Community Colleges:

Community in the classroom by helping students feel a sense of involvement in learning,
Community through the college curriculum by developing a common core of learning,
Community through student diversity by increasing student retention rate and rate of associate degree completion, and
Community by assessing the outcomes through developing campus-wide assessment of institutional effectiveness.

Through early academic intervention, all Crowder students are assessed and placed in appropriate college-level and/or pre-college courses and monitored for academic progress through our unique instruction-based retention program. By using instructional based advisement services, rather than student personnel services where retention and student support systems usually reside, the program provides intrusive support towards student progress from entry to graduation through appropriate Educational Advancement course work and services imbedded in the associate degree curriculum.

ACT reported in 1988, two years after the Educational Advancement Program began, that 97% of our full-time, first-time freshmen re-enrolled for their sophomore year. Concerned that improved student advancement indicated lowered standards rather than improved academic environment, we tested graduating sophomores. Our 1989 associate degree graduates taking the ACT-CAAP Critical Thinking exit exam scored in the top third of the national pool of testers and 73% of our Teacher Education graduates passed all components of the C-Base (new statewide sophomore rising) exam, besting the state average for all colleges and universities by nine percentage points. Our student advancement success through the new Educational Advancement Program has been achieved while entering ACT composite scores remain below national averages.

While national ACT composite averages rose from sixteen to nineteen, entering Crowder students' ACT averages rose from fifteen to sixteen. Citizens of our rural-base district in the heart of the Ozarks depend on the presence of a community college for economic and personal futures. College-going rates of the district have risen from

10% and 20% in rural and town schools respectively before Crowder opened doors in 1965 to 50% and 60% - close to national averages - in the same communities today. But economic viability remains a concern for our area where people are still willing to survive on two minimum-wage incomes per family while minimum wage jobs dwindle. Crowder has become a central cog toward developing industries and training workers to meet the new industrial technologies. To ensure technological growth, the College has been forced to find innovative budget development techniques while our resources are keyed to the minimum wage taxation base. We found that we could utilize existing instructional personnel to create an expanded student academic support program of courses and services, our Educational Advancement Program, for those growing numbers of workers and high school graduates seeking jobs in new and developing fields.

Each portion of the Educational Advancement Program, coordinated by an instructional counselor, utilizes instructional personnel resources. Minimum essential tests, keyed to college core learning standards, follow compulsory entrance testing. Students are advised to enroll in college-Prep (CP) or college-level courses based on the early assessment. Support is available throughout the semester in the form of CP classes in math, reading, writing, and general college skills; group Supplemental Instruction (SI); free tutoring provided by peer tutors; and Learning Opportunity Center (LOC) where students use computers and software for remediation, extension of classroom activities or exploration of career plans.

The College Prep courses, step-wise classes corresponding to locally-normed minimum essentials examinations, are taught by full-time and part-time instructors; student SI's, trained honors students, work with identified at-risk courses; peer tutor and LOC staff ranks are also filled by top students. We have been able to maintain a large number of work study positions for our size since extended use of the federal assistance program in the 1960s was "grandfathered" in the 1970s. Students not qualifying for federal assistance programs participate in a student volunteer program called PACT, receiving credit for their training and tutoring. In times of greatest budget crunch, administrative and faculty members also volunteer one or two hours a semester toward LOC staffing or study skills instruction.

In addition to Educational Advancement classes, faculty members refer students in difficulty for any reason (lack of progress, non-attendance, personal problems, etc.) to the coordinator who makes personal contact with students offering career and academic counseling. Our Altos computer system provides efficient use of records and student information so that all at-risk students receive regular monitoring.

In the fall of 1986, the inception of the program, 125 of our 1500 students used the Educational Advancement Program. By fall of 1988, the results of a survey showed that 92% of full-time students and 58% of part-time students used an Educational Advancement course or service. The impact of our unusual instruction-based Educational Advancement Program has allowed a high rate of student retention, student access to support services, and early-warning advisory processes, all of which contribute to successful student outcomes. Research data from the Missouri

Association of Community and Junior Colleges indicates a graduation rate at Crowder of 71%, the highest in the state. By recognizing that all college students must achieve common levels of learning for college credit, incorporating student and faculty volunteer services, and improving associate degree attainment, our Educational Advancement Program fulfills both the word and the intent of the Futures Commission's proposal by building relationships among classroom learning, student involvement, applied academic programming, innovative improvement of productivity, associate degree attainment, and outcome assessment communities.

MINORITY OPPORTUNITY CENTER FOR SCIENCE AND MATHEMATICS

Southside Virginia Community College
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Contact Person - Donald R. Spell

The Minority Opportunity Center for Science and Mathematics at Southside Virginia Community College is a unique program representing collaborative efforts between the community college, local public schools, community organizations, and senior colleges.

Funding for the center was obtained through a competitive grant application to the National Science Foundation. The purposes of the center address two of the major problems confronting our educational system and work force today:

1. The declining numbers of African Americans who become teachers.
2. The paucity of African Americans participating in science, engineering, and technology based fields.

The MOCSM addresses these issues at both the college and secondary level.

The fact that Black Americans are no longer pursuing teaching careers at the rates they use to may have profound implications for our public school systems. According to current projections, the percentage of black grade school students will increase from 25% in 1986 to 45% by the year 2000. Concomitantly as the percentage of black grade school students increases, the percentage of black teachers is decreasing. Only 5% of all grade school teachers will be black by the year 2000 if the current trend continues. In the Southside Virginia Community College service area, 36% of the public school teachers are black although 60% of the public schools have a larger percentage of black students than white students. The service area is rural and relatively large containing ten counties within a 4200 square mile area. The public

school systems within the service area are concerned about the low number of black teachers in their school system. Superintendents from all ten counties wrote letters of support which were included in the grant application for the center.

At the college level, the center provides scholarships to black students under the science/mathematics teacher education program. Those selected to participate in this program are awarded financial support in the following areas:

1. Tuition and fees to attend SVCC as full-time students.

2. Travel stipends to help cover transportation cost to and from the College (The average full-time SVCC students commutes forty miles a day, five days a week).
3. Book stipends.

Participants pursue the Associate in Arts and Science Degree as a science major through the University Parallel/College Transfer Program at SVCC. Students my transfer to any senior college of their choice. In order to encourage and facilitate transfer, SVCC has established cooperative programs with four senior colleges. Under the MOCSM specific additional articulation agreements are in development with two four-year institutions which would allow participants to transfer from SVCC and obtain teacher certification in science or mathematics.

At the secondary school level, the MOCSM is interested in identifying black-grade school students (8th-12th) who can benefit from remedial study or advanced study in science or mathematics. The SVCC service area is a rural economically depressed region with a large population of Black Americans (43%), high levels of poverty, and a lack of a tradition of education. As a consequence of these demographics, many of the black youth in this region are considered at-risk. The center sponsors students in science and math competitions and conducts field trips to laboratories, museums, industrial settings, wildlife habitats, etc., in order to acquaint them with the opportunities available in science and technology disciplines.

A learner centered program called "Contact Science" was developed and targeted for at-risk students who are performing marginally in science/math courses. Many of the black high school students in the SVCC service area are in vocational track or other types of programs which may not require Algebra I or higher level mathematics/science courses. The purpose of the Contact Science Program is to identify some of these students and provide a positive experience for them in science/mathematics. The fact that these students tend to use a relational/field dependent learning style is incorporated in the program structure. The intent is to motivate them to take at least Algebra I or higher level math/science in the next school session (September 1990). This program is conducted in the schools during the regular school day by SVCC faculty, students and staff.

The objectives of the Contact Science Program are:

1. To increase the proportion of black students taking Algebra I and higher level high school science mathematics courses.
2. To provided a positive experiencing in science and mathematics for black students who generally avoid taking mathematics and science courses.
3. To help develop cognitive processes leading to the enhancement of analytical logical sequential thinking.
4. To encourage these students to consider careers in science and technology fields.

Although the center has only been operating slightly less than a year, some measures of success have been obtained. Presently, eighteen students (fifteen full-time, three part-time) are enrolled in the science/mathematics teacher education program. Two students will be graduating in May 1990 and transferring to a senior college. One of these two students is listed in, "The College Board 1990: Talent Roster of Outstanding Minority Community College Graduates." About forty high school students have participated in center sponsored activities. Two high school participants presented original scientific research papers at the Virginia Junior Science and Humanities Symposium, a statewide competition. Only twelve students throughout the state who submitted papers were asked to present them.

The MOCSM also sponsored a group composed of students from two local high schools in the Team Academic Excellence Testing competition at the same Symposium. These students are the first in their region to participate in this competition.

Despite the fact that this center is fairly new, there is evidence of external recognition of the program. At the community level, local black churches, NAACP Chapters, black fraternities and sororities, and professional groups were consulted and requested to submit candidates for the center. These groups are aware of the center and fully support its goals. The center director also gives talks to community organizations such as the Rotary Club on issues related to minority education and economic development. An article describing the program was published in the Fall/Winter 1989 issue of the **Journal of Virginia Community College Association**. We have also received inquiries from other community colleges wanting to know how to establish similar centers of their own.

It is anticipated that the MOCSM within two to three years will develop into a regional science mathematics center serving a very large population of minority students.

OPEN LEARNING

John Wood Community College
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Contact Person - Dr. Veldon L. Law

Since first enrolling students in 1975, John Wood Community College has remained committed to the concept of an efficient, accessible educational delivery system that provides the student with several quality options. One of the most important of these quality options is a delivery system called the Open Learning Program. This program features open entry, open exit enrollment in courses taught with a mastery learning design. JWCC combines media-based materials (audio and video-taped materials and computer-assisted instruction) and highly skilled instructors to individualize instruction for over 1,400 students in scores of credit bearing courses. These courses range from developmental coursework through courses in mathematics, English, computer science, social sciences and the humanities. All coursework for the Associate in Applied Science Degree in Secretarial Science as well as certificate programs is available through the Open Learning Center.

The success of the program is easily demonstrated by the fact that the average grade point is 3.03, on a 4 point scale. Transfer of credit earned through Open Learning to four-year colleges and universities has never been a problem.

No one knows better than the consumer the quality of the product. Student comments are continually solicited and program evaluations by students are performed three times a year. Also an Open Learning Advisory Committee is in continual operation. A close-knit working relationship between the Open Learning Program Director, instructors and students has resulted in corrective action that has improved the quality of the courses offered.

The delivery system has provided instructional course work to increasing numbers of traditional and non-traditional students who maintain that the Open Learning Program is accommodating to diversified learning rates, learning styles, and other restricting barriers of structured classroom environments.

The program was recognized in 1986 by the Center for Developmental Education and last year by the National Council of Instructional Administrators. Over the years state and local agencies have recognized the Open Learning Program for educational excellence. Personnel from other institutions frequently visit to gather information on the Open Learning Program.

Over the past year John Wood Community College has worked in concert with a local secondary school district and a major industry in Quincy to provide educational

services either close at home or in the work place. The school district is located in a rural setting forty miles from the John Wood campus. The needs of the local community are now being provided with forty-four college level courses offered in an Open Learning Center at the district high school. Courses can be added or deleted as necessary.

In January of 1990, JWCC and Cooper Industries jointly established a working Open Learning Center on the Cooper grounds, providing a singular opportunity for the Cooper employees to attend courses immediately following their scheduled work day without leaving the company grounds. After an initial in-house survey, over 120 Cooper employees expressed an interest in the program.

Since January 23, 1990, twenty-seven students have been attending classes with certified JWCC instructional staff members two days a week from 4:30 p.m. to 7:30 p.m. Initially, the Cooper OLC is offering both business and English curriculums, including transfer level and developmental level course offerings.

In addition to the evenings of supervised instruction, the Cooper employees may use the audio and video tapes on their lunch hours and on evenings when instructors and test monitors are not present which further extends the student's learning potential.

Through the opening of the Cooper Open Learning Center, John Wood Learning Center, John Wood Community College has taken a significant step in bringing expanded educational opportunities to the work place. By offering quality transfer and developmental courses in the industrial setting, JWCC has provided great access to a student population previously unable to realize their true educational potential.

OUTDOOR SEMESTER IN THE ROCKIES

Colorado Mountain College
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Leadville, CO 80461
(719) 486-2015
President - Dr. Dennis Mayer
Contact Person - Dr. Joe Forrester

In **Building Communities**, the Commission on the Future of Community Colleges established a goal that "...all students should learn about the human heritage and the interdependent world in which we live." What better way to attain this goal than through a program emphasizing liberal arts, outdoor skills and personal growth using the Rocky Mountains and the desert southwest as a classroom.

The Outdoor Semester in the Rockies is designed for the student who finds no sense of self or community in a traditional academic environment and for whom a normal classroom holds no interest or challenge. The program is founded on the principle that

the key to our future lies in our ability to balance our knowledge of man with knowledge of the natural environment and that the need to develop and stimulate an awareness of the delicate balance of man and the environment.

In a typical semester, students and faculty spend over 100 days in the field and travel from the central Rockies through New Mexico, Arizona and California to the Pacific Coast of Mexico. During this time, students develop outdoor skills including mountaineering, rock climbing, desert and winter survival and ice climbing.

At the same time, students gain self confidence and refine personal skills. They develop the ability to adapt to a variety of difficult situations and the value of teamwork. They acquire a sense of self and of community extending beyond the boundaries of the wilderness and into every day life.

Basic academic skills are also emphasized in the program. Students enhance reading skills through interpretation of maps, map legends and written instructions guiding individual groups through the wilderness from one campsite to the next. They learn math skills in calculating distances and in calculating time required for travel. They learn to compute caloric intake requirements and to formulate food and water allowances for wilderness treks of varying length. To expand writing skills, each student maintains a personal diary detailing his/her experiences.

During the program, students study the ecology and geology of mountains, deserts and coastal plains. They experience each environment and observe the interrelationships between physical environment, plant life and animal life. They see, firsthand, man's impact on the ecosystems.

Students have the opportunity to explore Indian ruins in New Mexico, Arizona and Mexico in their study of anthropology. They can compare the lifestyles of the agrarian societies to those of the nomadic societies while experiencing the environment in which the societies lived, and they partake of the heritage and legacy of the various societies.

Through a course entitled Wilderness and the American Ethic, students develop an understanding of the history and ethics which have shaped the American west and the wilderness. They learn the factors contributing to the wilderness movement and the contemporary views of nature which shape man's relationship with the wilderness and impact development of public land use policy by federal and state governments.

The Outdoor Semester in the Rockies Program was initiated in Fall 1987, and has been offered only in the fall semester. The number of students permitted for each class is restricted and admission is on a first-come, first-served basis. The program consists of eighteen semester credit hours and completion of the program results in an award of Certificate of Completion. As an incentive for students to continue their education, eighteen of the credit hours earned through OSR are applicable to the Associate of Arts Degree.

Since the inception of OSR a measure of its success has been student persistence. To date, 98% of students officially enrolled have remained to complete the program. In addition, 45% of the students completing OSR have remained with the College to pursue other programs.

In building on its success, OSR continues to grow. Student demand has reached a level to necessitate offering the program in both fall and spring semesters effective in Spring 1990. Additionally, the program is receiving external recognition, and discussions have recently been initiated by a four-year institution interested in articulating transfer of OSR's full eighteen credit hours into the university's Outdoor Education Program.

The structure and conduct of OSR represents a truly innovative and integrated approach to the teaching/learning process. The program succeeds in educating the whole person, in balancing academic training with experiences which help students grow physically and personally.

PACE

Longview Community College
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President - Aldo Leker
Contact Person - Dr. Sarah Hopkins

PACE (Program for Adult College Education) at Longview Community College is an exemplary instructional program in many ways. Begun ten years ago with fewer than thirty students, it had an enrollment of over 1,000 in the spring 1990 semester. Approximately 700 graduates have already received their Associate in Arts Degree; most of them have transferred to a four-year institution to earn a baccalaureate degree. At the 1989 commencement 27% of the longview graduates had earned all or most of their credits through the PACE delivery system. Although PACE students account for only about 10% of the college enrollment, they provide about 35% of its AA degree candidates. The dropout rate is exceptionally low, only 12% in the spring 1988 semester compared to about 30% for the District. Students coming into the program usually state goals related to careers and income, but graduates reflecting on what they actually achieved cite self-confidence, willingness to risk new undertakings, and increased satisfaction with self as major changes in their lives that occurred during their time in PACE classes. One hundred percent of the graduates surveyed said that they recommend PACE to their friends.

PACE is exemplary for more than the success of its students. It packages traditional course in a nontraditional delivery system which enables a working adult to earn a degree in about the same amount of time as a so-called traditional student and still

maintain a schedule that is compatible with work and family life. Courses are offered in groups so that students study within a single discipline each semester taking three separate, but related, courses. Three different modes of delivery are used. Although the degree and the course material are the same as that which any Longview student would master, the scheduling enables the adult to go to class one evening a week either at his work site or at a location near his home, to watch a telecourse at home two hours a week, and to attend a weekend conference on the campus once a month. This conference brings all the small weekly classes together and is team taught by all the instructors. This arrangement gives students a small weekly discussion group at a convenient location as well as exposure to the campus setting and a number of teaching styles on the weekends.

PACE addresses the **Building Communities** theme in a number of ways. Rather than training the increasing numbers of working adults for specific job skills that may soon be obsolete, its curriculum is designed to enhance a student's ability to think critically, work in teams, solve problems, and communicate effectively. These are essential skills that will enable a student to adapt in a changing world.

PACE reaches out to the business and labor communities as well as to rural areas and minority populations. It provides core curriculum courses such as philosophy, composition, and science in such diverse locations as the Ford Assembly Plant, the UAW Union Hall, St. Luke's Hospital, federal buildings, and small towns that have no other source of higher education.

A further dimension of this program is its labor education component and its partnership with a four-year institution, the University of Missouri at Kansas City, where students can complete a four-year degree in a similar delivery system and curriculum emphasis. A student graduating through PACE can automatically be admitted into the university system under a coadmission policy.

PACE operates as a small college within the large institution by adapting the institution to the needs of the individual student rather than expecting a working adult to change his life to match a traditional college schedule. This includes providing convenient student services, selecting appropriate faculty, and serving as an occasional ombudsman. PACE has created working partnerships in Kansas City that are a positive force in adult education. It has broken barriers between two and four-year institutions, between management and labor, and between rural and urban communities that will upgrade not only workers' skills but also workers' confidence in themselves.

UNIVERSITY PARALLEL TRANSFER

Pellissippi State Technical Community College
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Contact Person - Prince Brown, Jr.

Pellissippi State was chartered in July of 1988, and is now the second largest community college in Tennessee, realizing a 44% enrollment increase from Fall 1988 to Fall 1989. Previously State Technical Institute at Knoxville, the mission change provided an opportunity, recognized and seized by the College, to build on its reputation of excellence in technical education and to expand its partnerships with business and industry. With its elevation to full community college status, PSTCC wasted no time in developing forward-moving partnerships which enable students to transfer immediately to baccalaureate granting institutions upon graduation with the AAS/AS/AA degree. In the last year PSTCC has negotiated formal transfer articulation agreements with the University of Tennessee at Knoxville and Maryville College, a high-quality, private institution. Similar agreements with the Tennessee Technological University and East Tennessee State University are being negotiated. The Tennessee State Board of Regents has called the attention of all of its institutions to the PSTCC articulation model as worthy of emulation.

PSTCC's formal articulation agreements effectively remove the confusion often surrounding transcript interpretation, and award appropriate credit for course work done in technical and career programs. The process of negotiating the agreement creates a bond of mutual trust and respect between the faculties of the sending and the receiving institutions which insures greater cooperation on shared concerns and problems in the future.

The implementation of the articulation agreements, in effect, makes PSTCC a vertically integrated, comprehensive community college capable of meeting the needs of its increasingly diversified student body. Coupled with existing agreements with local high schools and state area vocational-technical schools students may now receive advanced credit for skills mastered in high school, matriculate in a comprehensive core education curriculum at PSTCC, earning the associate degree and moving with ease to one of several baccalaureate institutions.

It is expected that the agreements will assist other developments on campus aimed at improving minority student enrollment, progression, and graduation. PSTCC and the University of Tennessee at Knoxville have just initiated a joint effort to aggressively recruit minority students. Pellissippi offers students a supportive and nurturing environment for the first two years of college with developmental programs, counseling, tutoring, and academic advising services. Upon successful completion of the program the student can automatically transfer to the University. Articulation

attacks one of the long-standing problems in American higher education: the low rate of successful matriculation of minority students, particularly in the sciences and related technical areas.

Several positive developments are already evident. University of Tennessee admissions personnel are on the PSTCC campus regularly talking with faculty and students. Students intending to transfer are meeting regularly with their advisors to make sure that they understand the options available to them. The rapid enrollment increase is due in part to the transfer agreement. Fifty-one percent of all enrolled students are in a transfer curriculum.

The agreement exists in the form of a catalog available to students and faculty on both campuses. Students have six years to complete the program, which is a major-to-major transfer. The catalog was prepared in a Word Perfect format so that curriculum updates can be made efficiently and without delay.

The primary outcome of the program will be a higher percentage of graduates obtaining the baccalaureate degree and more students being attracted to PSTCC. Another outcome will be improved instruction as PSTCC works to meet the conditions of various articulation agreements.

NURSING

ASSOCIATE DEGREE NURSING

Mohegan Community College
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Contact Person - Dianne E. Williams

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: All Connecticut programs preparing students for RN licensure (AD, diploma, baccalaureate, and the masters program at Yale) are ranked based on student performance on that standardized national licensing examination. Of the eighteen total programs, our students graduating in 1985, 1987, and 1989 ranked first in all of Connecticut and in 1986 ranked second. Until 1989 this was based on mean score and in 1989 it was changed to percent who passed. The percent of our graduates who obtain employment has remained 100% since the program opened in the early 70s.

EXTERNAL RECOGNITION: The quality of instruction has been recognized by the attention at the state level to our student outcomes. In addition, since 1987 the College has applied for and received over $102,000 from the Helene Fuld Health Trust to renovate, re-quip, and update a nursing simulation laboratory/media center and expand mediated instructional software holdings for videotaped and computer assisted instruction. In 1988, a proposal to establish the four AD nursing programs in the community college system as a Center of Excellence was ranked first by the Board of Trustees and approved by the Board of Governors for Higher Education, but ultimately not funded. This was written by the associate dean of Mohegan Community College. There is always a waiting list of applicants to our program, which demonstrates the positive view of the program in the community.

BUILDING COMMUNITIES: Mohegan's Nursing Program has implemented the recommendation to "give more attention to student retention... and reduce the number of students who fail to complete the program in which they are enrolled."

UNIQUE CHARACTERISTICS: The Nursing Program has a philosophy that retention activities must build on informed decisions and academic preparation on entry into the program. Unique and successful activities related to the retention objective are as follows:

A "Shadow a Nurse" experience was arranged with a local hospital in which students who had no experience or demonstrated understanding of nursing in today's world wanted to enroll in the Nursing Program spend a day following a staff nurse. The six students who participated are now all second semester nursing students, having made an informed decision to enter this field.

All nursing students and faculty are mapped using the Modified Hill Inventory, which is then interpreted in a two-hour workshop. Specific applications of individual cognitive styles to each student's preferred mode of learning theoretical, psychomotor, affective, clinical decision making/reasoning and group work content are discussed. Composite score profiles of each nursing class are formulated to guide the presentation of instructional content by the faculty. The system provides a mutually understood, value free vocabulary for use in student counseling and evaluation.

All prenursing students and those enrolled in the program are assigned to a nursing faculty member for the duration of their study at Mohegan. This policy was initiated by the faculty, even though it means nursing faculty see sixty or more student advisees each semester. In addition to monitoring academic progress, students receive career planning guidance, interpretation of test results, advocacy within the College and program, and referral to appropriate sources of assistance for academic, personal and other problems. We have found that support is especially important prior to beginning the nursing courses to increase the probability of student success once in the program.

LICENSED PRACTICAL NURSE/ASSOCIATE DEGREE NURSING PROGRESSION

Owens Technical College
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Contact Person - Barbara B. Jaglelo

The LPN/ADN Progression Program evolved at Owens Technical College in 1985 as a result of an expressed need of the LPNs in the community who were experiencing a hiring freeze and layoffs.
The program was implemented on the Findlay Campus in 1987. The nursing faculty responded by collaboratively researching the literature, visiting established programs, meeting with practical nurse educators, reviewing the basic curriculum and selecting a valid testing tool to provide advanced placement for the student to facilitate upward mobility. The faculty have supported this process by designing a comprehensive nursing curriculum to meet the special needs of Licensed Practical Nurses who seek a degree in nursing. Through combined college studies and supervised clinical experience, graduates of the program are prepared for nursing positions as team members in the twenty-six plus hospitals and related health agencies with which the Department of Nursing affiliates.

This program addresses several recommendations put forth in **Building Communities** and most specifically the following: "Every community college should work with employers to develop a program of recurrent education to keep the work force up-to-date and well educated. Such a strategy should become an integral part of any regional economic development program."

Since the curriculum is designed to allow twenty semester hours of advanced standing for previously learned content and clinical practice experiences, graduates complete the program in either one calendar year or two and one half semesters.

Outcomes of the evaluation process of the program demonstrate that since the inception of the LPN/ADN Program, approximately 55% of the students have attained an overall grade point average of 3.0 or higher on a 4.0 scale. In addition, each semester a Nursing Honor Award is granted to a graduating nursing student to recognize superior academic achievement and community leadership. A graduate from the LPN/ADN Progression Program received this honor at the completion of the Fall, 1989 Semester.

Students, as perceived by the Department of Nursing, are the most important resource of the College, subsequently the nursing faculty direct their efforts toward assisting students to increase breadth and depth of learning and thus reach their maximum potential. The age of the students admitted to the LPN/ADN Progression Program

ranges from twenty to over fifty years. This adult population has many needs and responsibilities that are not experienced by the traditional college student. The College and Nursing Program have addressed these needs in the following ways: provision for part time enrollment, addition of evening clinical sections, well-planned personal counseling and academic advising systems and provisions for students to discontinue their program and to re-enter according to their individual needs. A student profile of the Fall, 1989 students supports the above data. Example: Students selected the Owens Nursing Program due to its reputation, success on the NCLEX-RN examination and the choice to drop out and re-enter the program as needs dictate.

The Nursing Program provides for the students' professional goals whether they be for a terminal degree, a mid-life career change, or continuation for a Bachelor of Science in Nursing Degree. In light of this latter goal, articulation agreements to attain a B.S.N. Degree have been reached with Bowling Green State University and the University of Toledo in cooperation with Medical College of Ohio and Mercy College of Detroit. Five years past graduation, 50% of nursing graduates are currently enrolled in a baccalaureate program and more than 8% one year post-graduation.

External assessment of program quality is validated by several means. NLN reaccreditation has been achieved for a maximum period of eight years beginning with the initial accreditation in 1976. The Ohio Board of Nursing reviews the program via survey visits and the annual report with an outcome of full approval since 1973. The first time passing rate on the NCLEX-RN examination to date is 99.2%, 261 LPN's took the NCLEX-RN examination and 259 students passed the examination on the first attempt. All examination means have exceeded the state and national means. NLN achievement tests taken by the students are consistently above the 50% percentile.

Employer evaluations have consistently ranked graduates above graduates from other programs. In addition to the quality of graduate competencies, the cost of orientation for employers according to the nursing advisory members, has been reduced from approximately $8,000 to $1,500. As of 1989, 100% of the LPN/ADN graduates were employed in nursing, demonstrating response to the crisis of a nursing shortage. The Nursing Program prepares approximately ninety LPN/ADN graduates each year to help fill the annual national need for 85,000 new registered nurses.

Nursing advisory members representing affiliating clinical agencies, alumni, the Toledo District Nurses Association and the Black Nurses Association support quality education through their support in recruitment, tuition reimbursement and placement of graduates. The LPN/ADN Progression Program was awarded an Academic Challenge grant through the Ohio Board of Regents
selective excellence program. The grant is allocated for a six- year period of time and became effective during the 1989-90 academic year for the amount of $50,000 per year.

NURSING

Blue Ridge Community College
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Contact Person - Jo Ann Lowdon

The Blue Ridge Community College Nursing Program is the most recently established, and in many regards, the most innovative, nursing program in Virginia. Efforts to secure approval for a traditional, two-year associate degree nursing program for the small, rural community college in the heart of the Shenandoah Valley began in the mid-1970s. The highly respected diploma nursing program at the area's largest community hospital was preparing to phase out its nursing program in 1978 in deference to a new, baccalaureate nursing program which was getting underway at James Madison University. There was another baccalaureate nursing program in a private college in Harrisonburg.

Blue Ridge Community College's first two requests were denied; the third was approved in the spring of 1984 with two major specifications: the Blue Ridge program would be a cooperative agency with an existing nursing program and the program at Blue Ridge could only accept students who were already licensed practical nurses. The rationale for this was the expressed opinion that we were faced with a glut of nurses. The LPNs would pursue a curriculum of twenty-nine semester hours in academic courses, thirty-three hours for clinical and receive seven across-the-board credits for their education and work experience.

Graduates receive the Associate in Applied Science Degree and are prepared for the NCLEX Exam for Registered Nurse licensure. The cooperating agency is Germanna Community College.

On May 28, 1984, ten LPNs who had completed the academic requirements started their clinical year. Nine graduated, and eight passed the licensure exam; the one who failed passed on her second attempt and all are employed in nursing. There were twenty-two in the second class, all of whom graduated and passed boards on their first attempt. All graduates are employed in various nursing fields; at least two are nursing directors in nursing homes. One graduate who had a baccalaureate in another field is in a Masters in Nursing program, and a number of others are pursuing course work towards the BSN. With our sixth class of forty-one now in their last semester, we have an over-all retention rate of 97% and first time pass rate of 96%. Along with our students who are pursuing the AAS Degree, we have had two RNs from Europe who have taken clinical classes in preparation for the NCLEX; one succeeded on her first attempt and the other will take it in February 1990. Two "chronic" board failures from other programs--one three times and one six times--have succeeded after taking several of our classes. One three-credit class, Nursing Process, was identified as a

refresher course for RNs returning to practice, and seventeen students have completed the course and found that it met their needs. The nursing faculty also serve as advisors to those preparing for admission to other nursing programs and to RNs who are seeking BSNs.

In October 1986, our program received an Excellence in Education Award from Virginia Polytechnic Institute and State University based on the achievements of the first two classes. Currently one of our affiliating hospitals is paying the salary of a full-time instructor for the 1989-90 and 1990-91 academic years so that we could increase our student population. They also provided attractive brochures for recruitment and, with our other community hospitals, offer a scholarship/work program for students.

In the spring of 1989, we submitted a grant proposal to the Virginia Department of Education called the Northwestern Virginia Regional Nursing Program which provided for articulation between three area community colleges and five vocational nursing programs. We received funding the years 1989-1991 to refine and extend articulations to this larger area, and we are making measurable progress.

Also in the summer of 1989, we received approval from the State Board of Nursing, the Virginia Community College System and the State Council of Higher Education to begin a traditional two-year nursing program with thirty students in Fall 1990. Community response has been overwhelming; in five months since this was announced we have met with 225 applicants with whom we have planned programs which are compatible with their busy lives. Curricula leading to graduation in 1992, 1993, 1994 and 1995 are currently being pursued. The drive for this program originated with one of our affiliating agencies, and without the full-blown support of all our agencies probably could not have succeeded.

We have documented evidence of the success of our students and of the recognition the program received regionally and state-wide. We originated as a cooperative agency and have gone on to build a collaborative, regional affiliation, and these activities are interdependent with the health care agencies of our communities. We are pursuing the goals described in **Building Communities**. We are preparing some of the members of our communities to meet the health-care needs of all the members of our communities.

NURSING

Darton College
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Contact Person - Betty Ann Page

The Darton College Department of Nursing represents an exemplary educational program. With strong leadership, a committed faculty works diligently and cooperatively with regional health care agencies to provide diverse enrollment opportunities for nursing students. Over the past ten years, the Darton College Nursing Program has averaged sixty graduates per year. These graduates now provide nursing care in a variety of health care agencies. These include: hospitals, community health agencies, home health care agencies, industrial plants, schools and physicians' offices. For the year 1989, seventy-two students graduated with 92% passing the National Council Licensure Exam-RN. This percentage is above both state and national passing scores. The 92% passing average has been maintained since 1982. An enrollment of 398 students for fall quarter 1989 represented a 20% increase over fall of 1988.

External recognition of the program is evident through continued full accreditation by the National League for Nursing and the Georgia Board of Nursing. Local recognition can be demonstrated in many ways. Employers frequently call the nursing department when they are seeking a nurse to fill a position within their organization. Civic groups request the assistance of Darton nursing students and faculty in their community activities. For example, the local chapter of the American Heart Association utilizes Darton nursing students in some of its community blood pressure screening, and the first aid booth at the March of Dimes Walk-a-thon may be manned by Darton nursing students. Another indication of local recognition of the Darton College Nursing Program has been the establishment of nursing scholarships by community organizations, businesses and individuals. These are just some of the ways the Darton College Nursing Program has achieved national, state and regional acknowledgement.

The Darton College Nursing Program addresses several of the recommendations put forth in **Building Communities**. In an effort to meet the needs of southwest Georgia, the Nursing Program provides several educational options. The program offers either spring or fall admission, evening classes, off-campus classes and advanced placement for Licensed Practical Nurses. Thus, the program meets the needs of traditional students, adults, single parents, those changing careers and Licensed Practical Nurses desiring Registered Nurse status.

All nursing students must meet the requirements of the core curriculum as mandated by the Georgia Board of Regents. Core courses may be taken prior to or simultaneously with nursing courses. Initially, two identical nursing tracks were

offered to accommodate various learning paces. In the Spring of 1982, the Darton College Nursing Program formed an alliance with the administration of John D. Archbold Hospital in order to offer an off-campus nursing sequence in Thomasville, Georgia. Originally, this program began every other year in the fall quarter only. In order to meet the nursing demands of the Thomasville area and in continuing partnership with Archbold Hospital, this program was expanded and now begins annually in the fall quarter.

In response to the nursing shortage and in cooperation with local health care facilities, two nursing education options are available to Licensed Practical Nurses. The first allows the Licensed Practical Nurse to gain advanced placement in the Nursing Program by challenging the first two nursing courses. The second option is admission to the one year LPN Mobility Program. Students entering this track must complete the core curriculum prior to taking nursing courses, successfully complete a national standardized nursing test and demonstrate clinical skills proficiency.

In summary, the Darton College Nursing Program has multiple paths leading to the Associate Degree in Nursing: two daytime tracks on campus, an evening track on campus, and annual daytime track off-campus, and two enrollment options for the Licensed Practical Nurse. These diverse course offerings have been established in cooperation with regional health care agencies to meet the nursing needs of the surrounding communities. Through innovative scheduling the Darton College Nursing Program meets the needs of both traditional and diverse non-traditional student populations in collaboration with the health care industry.

NURSING

Front Range Community College
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Contact Person - Alma Mueller

Recommendations from **Building Communities** which this program addresses are listed with appropriate page numbers.

UNIQUE CHARACTERISTICS:

Collaborative Efforts: Reaffirm Equality of Opportunity (p 10): FRCC has implemented a collaborative project with Colorado Social Services, Job Training and Colorado Community Colleges and Occupational Education to educate AFDC (welfare) recipients into Registered Nursing. The nursing faculty has worked diligently to ensure as high a success rate as possible for these students to become self sufficient by entering a profession which has great meaning to their individual lives.

Recommended the Transfer Function be Strengthened (p. 37) and Coherent 2/4 Year Transfer Arrangements Exist in Every State (p. 38): The FRCC Nursing Program has been a major leader in the faculty initiated Colorado Nursing Articulation Project. This project will provide for articulation without testing from Licensed Practical Nurse to associate degree to baccalaureate programs in all public and private Colorado nursing programs. One barrier which has been overcome is transfer of ADN nursing lower division credit as BSN upper division credit statewide. Colorado will probably be the first state to have a statewide model implemented among all levels.

Students be Urged to Consider a Baccalaureate Degree Program (p.37): The FRCC Nursing Program is initiating a partnership with the University of Colorado to have outreach core courses which will also be telecommunicated to rural areas of the state for the RN to Masters degree in nursing.

Urge Alliances with Employers be Integrated into Existing Programs (p. 39): In addition to the partnership the FRCC Nursing Program has with twenty-five clinical facilities in the community to educate students in direct nursing care to clients, the program collaborates with twelve of those hospitals for a preceptorship clinical experience for students about to graduate. This preceptor partnership was presented nationally at AACJC in 1987.

Commitment To Innovative Teaching:

Two faculty have written interactive computer video and computer aided instruction programs: all faculty have developed videotaped instruction.

The psychiatric nursing faculty implemented a unique psychiatric nursing laboratory where students examine their own reactions to stress, anxiety, anger, and aging.

The program was a leader in the early 1970s in total integration of cultural content into the nursing curriculum, speaking nationally on this issue.

The department made a videotape for the thirty-five part time nursing faculty to view on learning progression and teaching strategies throughout the curriculum.

The faculty devised a clinical learning notebook kept by the students which interlinks the entire curriculum.

This allows for review and preview of all procedures, clinical learning tools and written assignments as well as all weekly clinical evaluations at any point in the two-year program for each student.

Commitment To Opportunity and Success:

A nursing faculty implemented a highly successful course in critical thinking for students who fail and seek re-entry.

Faculty have implemented role playing comedies before difficult exams after learning that students who laugh before exams consistently outscore students who study or exercise before exams.

Reaffirm Equality of Opportunity (p. 10): The admissions policy of the FRCC Nursing Program is based on an open door philosophy. Each student with a high school diploma or GED has an equal chance for admission through a lottery system. This philosophy reaffirms to students who lack basic skills and need

remediation who are traditionally discouraged from highly technical programs the "promise of empowerment through education." This policy has been consistently implemented even though the Nursing Program has always had a long waiting list (currently 600 applicants). This program could have been the most highly selective of any nursing program, but has been committed to giving individuals who might not have the opportunity at other schools a chance to enter nursing.

Give More Attention To Student Retention (p 11):

Despite open admissions, the attrition rate in nursing at FRCC is 20% (with a third of those re-entering and succeeding). Faculty are not interested in weeding people out but rather in helping them to succeed.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Along with this liberal admissions policy, graduates have done exceedingly well as nurses in the community enjoying a reputation of excellence in caregiving, and on their state board of nursing exams. Since 1982 when such data became available, a graduate has earned the highest score in Colorado on the exam for five years, and one of those years a graduate earned a perfect score.

Additionally, for class averages on the exam, FRCC has scored as high as the top 4% of all United States BSN, diploma and ADN programs and has averaged in the top 18% when compared to all United States BSN, diploma and ADN programs.

EXTERNAL RECOGNITION: In addition to the excellent reputation the FRCC nursing graduates have in the community, the eleven full time nursing faculty are recognized as leaders:

two serving on the Colorado Task Force on Nursing Entry into Practice (with only seventeen leaders statewide), presenting nationally, statewide and regionally on nursing issues and content, educating AFDC recipients in nursing, culture, preceptorships, creative writing, leadership, organizational structures, political action, and ACT testing for advanced placement, three authoring chapters in major nursing textbooks, the program receiving the 1990 President's Award for Outstanding Contributions to the community, earning awards of Master Teacher (2), Outstanding Faculty of the Year (2), Colorado Black Women for Political Action, Colorado Women at Work (2), Cultural Diversity, Black Profiles of Colorado, Outstanding Leadership (2), major Denver news station Teachers Who Make a Difference, finalist in Colorado Nightingale Nursing Education, and Outstanding Community Nurse, participating in grant projects on articulation, improved patient care, utilization of ADN graduates, recruitment and retention of minority students and faculty, and inclusion of cultural content in the curriculum, consulting on nursing education in three states, to the Louisiana Health Department, to national licensing exam writers on culturally biased items, on child abuse in western states, and to Denver Developmental Screening Testing.

NURSING

Harrisburg Area Community College
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The Nursing Program has a history of cooperation with the healthcare community since its inception in 1969. As the primary educational program preparing nurses for this region, its graduates are successfully employed by area healthcare providers in numerous key staff nurse, administrative, and educational positions.

Graduates of this seventy-one-credit program receive an Associate in Arts in Nursing. Ninety percent of our graduates pass the NCLEX-RN examination at the first sitting. The program has full approval of the Pennsylvania State Board of Nursing, and is accredited by the National League for Nursing.

An endowment has been established by five area hospitals for support of the program. Currently this fund totals $950,000. A scholarship/loan forgiveness program totaling $280,000 has also been established in cooperation with four area hospitals, which will begin awarding scholarships in spring 1990.

In the fall of 1989, five endowed professorial chairs were named in the Science, Nursing, Allied Health, and Physical Education Division. Two nursing faculty members were named Distinguished Professors in Nursing for a three-year period. Funds are awarded to these individuals for professional study, enrichment, and development of educational programs to benefit the healthcare community.

The nursing program faculty have authored a number of computer-assisted instructional programs to teach nursing skills. Since 1983, these have been incorporated into the curriculum and the programs have been revised and expanded annually. The programs have been purchased by other schools for use by their students.

Clinical experiences in the program involve placement in a number of area hospitals, each with its unique system of patient care documentation. To facilitate student compliance with varying agency policies, faculty developed a Charting Manual, supported by a college grant. The Charting Manual is now in its fourth edition. Faculty shared this process in an article published in **AD Nurse** in July/August 1988.

NURSING

Shelton State Community College
202 Skyland Boulevard
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President - Dr. Thomas E. Umphrey
Contact Person - Mary Ann Pearson

Since 1982, Shelton State Community College has operated a one-year, career-mobility program for Licensed Practical Nurses who desire to pursue the goal of licensure as Registered Nurses. This Associate Degree Nursing Program was developed to meet community needs and help resolve the nursing shortage in the service area of the College. Fully accredited by the National League for Nursing and approved by the Alabama Board of Nursing, this program serves the entire west Alabama area.

Students are admitted once a year during the fall quarter and must meet prescribed criteria such as one year of work experience as a Licensed Practical Nurse and grades of "C" or better on prerequisite courses. Graduates are awarded the Associate in Applied Science Degree upon successful completion of the twelve-month program.

During the short time the Associate Degree Nursing Program has been operational, it has enjoyed extraordinary success. The student pass rate on the National Council Licensing Examination is consistently one of the highest in the state. For example, Shelton State has graduated a total of 186 nursing students, 184 of whom passed the Examination on the first try, earning Shelton State a 99% overall pass rate. Five classes have attained a perfect 100% success rate on their first attempt.

Accountability is important for any educational process but especially in nursing education. The program attrition rate has always been low; but more importantly, Shelton State nursing graduates have earned and maintained a reputation for skill, competence, and stability in the work force. The excellence and productivity of our graduates make them actively recruited by health care agencies throughout the state, resulting in 100% employment. Generally Shelton State nursing graduates have the opportunity to select their choice from among three to five employment offers.

Our program does not end with job placement. At six months and twelve months after graduation, we seek follow up information on the performance and attitudes of Shelton nurses from the employers. The feedback obtained from these agencies is extremely positive and indicates that Shelton State's nurses perform beyond expectations and make outstanding employees. Therefore, the reputation, strength, and status of our nursing program are recognized throughout the state.

Such recognition can be credited in part to the unique aspects of the program. The program is specially designed to help Licensed Practical Nurses upgrade their

knowledge and skills to the Registered Nurses level in a rapid and cost effective manner. The program utilizes the work experiences of these Licensed Practical Nurses to expand their learning into new areas such as critical thinking, decision making, and management concepts while providing direct patient care. The program also establishes and maintains very close ties with the primary clinical facility through a creative agreement for joint-appointment faculty which benefits both the school and the clinical facility. The clinical agency offers one of its nursing specialists to the program as a clinical instructor in return for tuition credit for hospital employees. Thus, the program is enhanced by having a top professional with current skills available to work intensively with students while the agency has an opportunity to offer educational opportunities to employees. This collaborative approach has proven advantageous for both institutions and created a winning situation for everyone.

The Nursing Program embraces the theme of **Building Communities** by implementing several of the recommendations addressed in the AACJC commission report. First, we especially believe that good teaching is the hallmark of the community college; our students are encouraged to be active, cooperative learners. The nursing faculty accept the teaching/learning procedure as a dynamic process in which the learner and teacher take an active part. This premise is demonstrated by inviting students to work with faculty to individually tailor their clinical learning experiences to meet their own needs. Secondly, the skill and expertise of our nursing faculty are validated by the success rate of our graduates on the national standardized licensure exam. Further, our nursing instructors are encouraged to remain on the leading edge of technology and new nursing/medical developments by attending conferences and workshops within the state. Funds are included in the nursing budget for each faculty to participate in an out-of-state professional development trip annually. Finally, we consistently monitor our program effectiveness by surveying students, graduates, and employers at regular intervals.

The success rate on the licensure exam, the employability of graduates, the excellence of the faculty, interagency collaboration, and the follow-up procedure are all contributing factors to this outstanding program.

NURSING

Southern State Community College
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President - Dr. George R. McCormick
Contact Person - Jo Carol Laymon

The Associate Degree Nursing Program is one of the newer programs at Southern State Community College, chartered in 1975 and located in rural southern Ohio. The first graduates to receive the Associate of Applied Science Degree in Nursing

Technology completed in June, 1988. These first graduates quickly made an impression on nursing educators in Ohio by their achievement of the highest average score on the Licensure Exam of all of the sixty-five schools in the state of Ohio. After the second group of graduates completed the Licensure Exam in 1989, the success rate for Southern State graduates on NCLEX-RN was 97%.

The program received full approval from the Ohio Board of Nursing in September, 1988, after only one class had completed. The full approval has been renewed each year to the present.

The program sought initial accreditation from the National League for Nursing during the first eligible Academic Year 1988-89. In June, 1989, the Board of Review granted full accreditation for the Program for eight years, the maximum time possible.

The curriculum of the program was designed on a conceptual framework using the Human Basic Needs, the Nursing Process and the Health Continuum. Approximately half of the required 108 credit hours are general education courses providing a solid foundation of science, behavioral sciences, communication skills and humanities. The humanities courses are intended to expand the individual's understanding of the person, useful in both the work and home environment. The curriculum promotes the education of the whole person in a useful technology.

In **Building Communities** the Commission gives the following recommendation: "We propose that exchanges between educators and employers be increased to provide continuing education opportunities for faculty, to keep them current and closely related to work force demands. A long-range partnership plan with strong mutual benefits should be developed to sustain these relationships." This recommendation clearly states a guideline which has been an underlying force in the development of this Nursing Program.

From the initial steps of curriculum development, the nursing faculty have had close communication with the nursing service personnel of the local health care facilities. Recognizing that the reality shock of the professional nurse-graduate in the first employment year and its resulting frustration can carve deeply into a facility's ability to keep nurses working in the profession, one of the goals of the curriculum was to diminish the shock whenever possible. The faculty accepted the responsibility for curriculum design and course content but sought a cooperative environment from those employers who would be continuing the learning opportunities for students after graduation. Promoting the exchange between educators and nursing service personnel was documented in a day-long seminar where faculty members facilitated the design of learning objectives for the final nursing course in the curriculum by listening to the required skills for the new graduate as described by the future employer. This unique approach to curriculum development was necessitated by the recognized fact that smaller, rural health facilities may not have the opportunity to offer lengthy orientation programs for new graduates. The close communication between service and education encouraged the development of another innovative idea in the curriculum which respects the individual learning needs and interests of students.

During the final quarter of nursing courses the opportunity for a mentorship experience is required. Using a pre-selected number of clinical hours and with the approval of the clinical instructor, the student selects a practicing professional nurse in any setting to serve as mentor, writes personal learning objectives for the experience and sets up a contract with the mentor. This learning opportunity brings to the Associate Degree Nursing level a creative approach for the student to see practical ways to assume responsibility for his or her personal professional growth which can serve as a model for later years of practice. The success of this experience for both students and practicing nurses has been outstanding.

This exchange between the educators and employers has continued with many additional projects. Employers welcome the faculty members to inservice programs which keep faculty abreast of new techniques in the field needed by today's nurse. The educators and employers meet regularly as a formal group to ensure a continuing relationship. Current projects include designing a nursing career recruitment plan for the five-county high school and junior high school students and preparing a plan for continuing education programs for local nurses to be implemented at the College serving the needs of the employers.

Providing a high-quality, educationally creative nursing program in rural Ohio has required that some unique features be initiated into the program design. In the area of resources, college funds are adequate to meet the average needs of the program, however, above average demands would drain dollars needed for other programs at the College. To meet this need in the area of library resources a consortium has been implemented between three local hospitals and the College Learning Resource Center to add current periodicals and texts from the hospitals to the college library. From a carefully designed list the costs for purchase are shared by all facilities, yet provide a well-rounded nursing literature resource at this College available to all practicing nurses in the area without duplicating costs. Another example of a unique feature of the program is in the area of faculty resources. If during a quarter there is an emergency or an unusual need for an additional clinical group requiring a clinical instructor, the clinical facilities will release an appropriately-credentialed nurse selected by the College to be the clinical instructor and bill the College for the services. This promotes cost-effectiveness for the College while protecting the quality of clinical instruction available to students.

NURSING SIMULATED LABORATORY

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The healthcare setting is rapidly changing and healthcare personnel are working in a rapid paced, high-tech environment with very sick patients. The profile of students desiring to enter the healthcare work force is changing. They are often older, single parents with a mix of minority racial/ethnic groups. According to **Building Communities**, many minority students are screened out of demanding technical programs because they lack basic skills. It is the central mandate of this commission that all students must be offered an open door and that minorities should be empowered through education. As an open admissions institution, Santa Fe Community College attracts and serves a similar, diverse student population. To address the above concerns, nursing administration and faculty at Santa Fe Community College (a National League for Nursing accredited school) in Gainesville, Florida, made a strong commitment to develop a comprehensive nursing simulated laboratory.

In October, 1986, a master-prepared nurse was hired as a full time campus lab instructor to assist with the development of this Simulated Lab. Nursing faculty from four nursing programs met monthly to plan the direction of the Simulated Lab. National clinical, computer and interactive video experts presented programs at SFCC for faculty development. After consulting with nursing faculty at the local, state and national level, faculty developed dynamic clinical simulations for many nursing skills (ie. mobility, medical asepsis, nutrition, wound care, medications, team medications, IV therapy).

A financial commitment was made by SFCC's nursing administration to upgrade lab equipment and supplies to enhance clinical simulation. Local hospitals provided equipment and supplies at a lower cost because of a shared commitment. The Simulated Lab was also awarded the Helene Fuld Grant in 1988 to upgrade this Lab. These funds provided quality clinical simulation equipment and supplies including state of the art complete care mannequins, computers and interactive video technology.

The combined strategies of faculty enhancement and financially supported upgrade of technology resulted in the development, adaptation and use of innovative teaching/learning opportunities such as quality simulated clinical experiences. The use of these experiences in small collaborative groups or on an individual basis provided active learning opportunities that enhanced clinical problem solving and decision making of all students. Learning occurred in a safe environment.
Computer and interactive video technology were also integrated into the Simulated Lab curriculum to enhance learning (remedial, tutorial, clinical simulations, self-paced,

accelerated), assist students and faculty to feel comfortable with this technology, and to prepare students to use this technology in the healthcare setting.

Besides scheduled simulated labs, each student may receive individualized instruction with a lab instructor. Learning can be remedial, prescriptive (clinical to lab; back to clinical) and/or self paced accelerated in nature. Our referral system has evolved into a strong support system for students who need different kinds of learning experiences.

In three years the Simulated Lab has grown from one full time lab instructor to ten full and part time lab personnel. One lab instructor is also a Head Nurse in a local hospital. In addition, thirty-six faculty teach approximately 350 students in a seven-room lab occupying approximately 5311 square feet of space using the strategies presented. State board results have improved from a 87% passage rate in 1987 to 99% in 1989. Attrition rate has declined with the use of the lab for special pre-nursing programs such as a pre RN student program and a minority enhancement program for the Practical Nursing Program. Ten of eleven pre-PN students successfully completed medication skills in the minority enhancement summer program.

The success of this comprehensive Simulated Lab has been shared with community college and university colleagues from the local, state, and national level when they called and/or made site visits to see this lab in operation. **The Florida Nurse** (official Florida Nurse's Association newspaper) published an article in December 1989 about the innovations in the lab. The article was entitled "The Nursing Simulated Laboratory Comes of Age" and was featured under the caption "Educators--Incorporating Today's Changes to Prepare Tomorrow's Nurses."

Innovative changes have occurred in the Nursing Simulated Lab in order to provide more opportunities for realistic and practical individualized student learning.

REGISTERED NURSING

Hartnell College
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The Registered Nursing Program at Hartnell College has been in existence since 1964. Since that time, it has provided the majority of registered nurses for the vast Salinas Valley. Local health care facilities have been consistent in their praise of the preparation of the nurses that they hire from Hartnell. Each graduating class is immediately employed by our local health care facilities.

Since the inception of the Nursing Program, there have been only three-years when there was not 100% passage of the state board licensing examination. In fact, there is not one graduate of the Hartnell program who has not passed the state board.

In November of this year, based upon the scores of the graduates taking the National Council Licensing Examination in July, Hartnell's Registered Nursing Program received a ranking of #1 among the ninety-three California registered nursing programs, #1 among the 782 Associate Degree nursing programs, and #1 among the 1397 nursing programs (including associate degree, diploma, and baccalaureate degree nursing programs) in the entire United States.

One of the keys to the success of the Hartnell Nursing Program has been the support and participation of the employing community in the educational process. Particularly important has been the unique collaborative efforts between the local health care facilities and the Hartnell program. In addition to the very generous grants given by the local hospitals for scholarships and very active participation in advisory committees, a local hospital has donated twenty hours of a staff nurse's time to participate in the education of the nursing students. This nurse works at the College, providing instruction to the students as well as at the hospital, providing nursing care. This joint venture has resulted in education of the students that is current and very much practice-oriented. At the same time, the hospital personnel are learning about educational theory and student needs. Both the hospital and the College have benefitted from this arrangement.

Collaboration between the health care agencies and the College is also demonstrated by the unique externship program in the program. Between the first and second years of the program, students have the opportunity during the summer to be employed at a local hospital and to provide nursing care on a full or half time basis. The students are paid a student stipend administered by the College. At the same time that they are receiving valuable clinical experience and financial remuneration, the students also receive college credit. The hospitals benefit from this arrangement because the graduates are much more experienced clinically and the College benefits in that the students are better prepared for the rigors of the second year of the program.

The local health care facilities and Hartnell collaborate on the offering of continuing education courses for employed nurses. Further, the hospitals offer admission to their continuing education courses to faculty and students for discounted or no cost.

Building Communities makes the very strong recommendation that college programs form alliances with employers for the education of students and the continuing education of faculty. We believe that the Hartnell College Registered Nursing Program is an exemplary instructional program as the result of its alliances with employers as demonstrated by the high National Council Licensing Examination scores, by the external recognition given to the program, and by the high employability of its graduates.

TECHNICAL

AGRICULTURE DIESEL AND EQUIPMENT

Northeastern Junior College
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Contact Person - Donald Hagstrom

The Agriculture Diesel and Equipment Program at Northeastern Junior College, now in its twenty-second year, having started through a Manpower Development Act program in 1968, has graduated 207 students with an AAS Degree or two-year certificate. In addition, forty-seven students have completed a one-year certificate over the past twenty-two years.

Northeastern Junior College uses a yearly accountability system to successfully measure graduating students' competencies and skills. During the 1988-89 year sophomore students showed an overall 90% rating on performance of 157 competencies in the required program courses. In performance of on-the-job training, the ten graduates received an average to excellent rating from employers, and six of the ten graduates were hired as technicians by the OJT employers. Over the past twenty-two years the quality of student learning and performance in dealerships has continued to be excellent for program graduates.

The program has a long-standing tradition of recognition from outside the College and educational community. Many implement dealers from across the state have hired more than one program completer as permanent fulltime technician employees. Currently, several dealers are on a waiting list for employing future graduates. A local parts distributor has developed and funded a program to recognize a "Student-of-the Month" for the program. 1990 will be the fourth consecutive year this external recognition program for students has been provided.

Implement dealerships across the state and in western Kansas, southwestern Nebraska and southeastern Wyoming are aware of the NJC program and quality of student graduates both from successful fulltime employees and from serving as cooperators in the Agriculture Diesel and Equipment on-the-job training program.

A significant number of graduates of the program do not become employed as dealership service technicians but incorporate their entrepreneurial skills in production agriculture as farmers and ranchers maintaining and servicing their own equipment or as independent repair and service businesses in their home communities. These former

students are quick to acknowledge the technical and general education training as critical to their becoming successful, productive citizens and leaders in their communities.
The instructional staff at NJC, current and past, has been recognized by a variety of professional organizations for their role in the program and as exemplary leaders in the agricultural community.

Mr. Kent Ewing, Agriculture Diesel and Equipment Professor Emeritus at NJC, was honored statewide in 1989 by the Colorado Vocational Association as its "Outstanding Member."He was also honored in 1989 by the Colorado Vocational Agriculture Association for twenty-one years of service in his professional organization. During Mr. Ewing's tenure he was consulted by other community colleges to assist in setting up their program and recommend facilities or serve as an educator in State Comprehensive Program Review. Current instructors Ken Meis and Dave Lieber are active in their professional association and are sought by Young Farmer programs from across the state to provide practical educational programs to adults in their respective communities. Two instructors have been honored by the Colorado State FFA organization for outstanding service to postsecondary students in agriculture education.

The Agriculture Diesel and Equipment program does directly address three of the areas in **Building Communities**. The first area being addressed is "curriculum from literacy to lifelong learning." During the past two years new general education requirement have been added to the program to ensure competent skills in English, math, and computer literacy. The program is being updated to provide training in large bore diesel engines to meet area demands for diesel truck repair. More direct involvement with area farm equipment dealers and representatives from equipment manufacturers is occurring to keep the program's courses technically updated. Instructors are also surveying graduates and employers for training skills needed on new diesel equipment.

The recommendations in the "classroom as community" are also being implemented through technical updating of the two current instructors, purchasing of improved equipment, and stressing active and cooperative learning of students in the program's laboratories and OJT experiences.

AUTOMOTIVE ELECTRONICS DIAGNOSTIC TECHNICIAN

Hawkeye Institute of Technology
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Contact Person - Roger Beck

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Numerous publications in and related to the automotive industry have for years indicated the need for automotive diagnosticians. It was reported that the automotive service industry would change when an adequate number of diagnosticians were available. These diagnosticians would need coursework in electronics, in addition to automotive coursework. These individuals, when employed, would revolutionize the auto service industry. Hawkeye Institute of Technology, a public two-year postsecondary institution, listened to the industry and developed a two-year Associate in Applied Science Degree entitled Automotive Electronics Diagnostic Technician.

Programs responsive to industry forecasts of future technician needs sometimes suffer from lack of student and potential employer knowledge or willingness to change. This program has done well in spite of this problem and the eighteen graduates of this program are opening the eyes and changing the minds of the auto service industry in Hawkeye's service area. Graduates of the program are employed as specialists with broad-based automotive skills and electronic diagnostic skills.

Success stories related to the College from program graduates and employers serve to encourage efforts for expansion of this type of program across the nation.

EXTERNAL RECOGNITION: After design and development of the program, the Iowa Department of Education provided grant monies to Hawkeye Institute of Technology for implementation. These grant monies, coupled with JTPA funds, provided the base for this program.

Kevin Kerr, Automotive Electronics Advisory Member and Service Manager at Reed's Cadillac, Olds, and Honda, in a letter to the College, wrote, "The training given to students at Hawkeye in both Electronics and Automotive is our key to successfully servicing the automobiles of the 90s. These people will change the image of the Automotive Service Industry."

BUILDING COMMUNITIES: The recommendations of **Building Communities** relating to instruction are addressed, specifically, through good questioning, critical thinking, scientific methods, and application of reasoning as applied to automotive electronic diagnosis. To encourage students to be active learners, a hands-on approach is used with 47% of the instruction. Class size was controlled to facilitate student

attention and assistance in learning and growth. Program size is limited to fifteen students entering the specialized automotive electronics instruction.

There was and is careful integration and alliance with the program advisory committee and with employers from business and industry in the development and in continuance of this program offering. This exemplifies the community partnership as set forth in **Building Communities**.

UNIQUE CHARACTERISTICS: Automotive Electronics Diagnostic Technicians are specialists with broad-based automotive skills and automotive theory electronics. Emphasis in the curriculum and training is placed on computer and micro-processor control systems of the total automobile. Trained specialists in automotive electronics are able to comprehend the interrelation-ships of the electronic components and their relationship within the automobile. In their area of specialization, the graduates diagnose malfunctions and prescribe the necessary adjustments, repairs or parts replacements. The curriculum of the program is designed to provide students with the knowledge and skills in electronics, automotive computers, engine design, engine maintenance, system set-up and adjustment, and electronic diagnosis. This innovative program has been developed to meet the current, emerging, and future technological service needs to assist industries and businesses in upgrading their operations and maintaining their service functions.

Staff at the College from the various departments worked together to design a program based on the merging of electronics instruction and automotive course work. The result of this effort is a curriculum highly successful in training students to enter the career area as skilled automotive electronics diagnostic technicians.

This program is supported by an advisory committee composed of individuals representing business and industry. There is broad representation on the committee of many industries that employ graduates and are vitally interested in programs training specialized technicians for highly technical service occupations.

Due to the high technology course work offered in this program, special attention was paid to meeting and addressing instructional needs for students with academic deficiencies prior to or during their enrollment. Special consideration in planning student support services responsive to the enrollment of older adult students pursuing retraining was addressed in the development of this program.

Primary linkages with business and industry have been addressed in noting the cooperation and support for program development and operation given by the advisory committee members. In the development of this program, considerable time and effort was afforded the College by representatives of General Motors, Volkswagen, Ford, Honda, Chrysler, Sun, Nissan, and Isuzu. These efforts continue with ongoing support for this program and active involvement of the advisory committee. Further, representatives of the industry are actively involved quarterly in meeting with students to discuss career opportunities.

Total operation and structure of this program is based on the core offered by the Electronics Department and its faculty. Further instruction in the specialty area of automotive electronics is built upon this core instruction in the Power Mechanics Department. Cooperative efforts have proved valuable in presenting this program, and high quality instruction is provided throughout the program by faculty who have specialized knowledge and expertise in the fields of electronics and automotive service.

AUTOMOTIVE TECHNICIAN EDUCATIONAL COOPERATIVE

San Juan College
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Contact Person - Charlie Houghton

San Juan College offers a unique program designed to train state-of-the-art automotive technicians. The Automotive Technician Educational Cooperative (ATEC) Program is designed after a model program developed by General Motors for the Automotive Service Education Program (ASEP) and offered in partnerships with community colleges. The San Juan College program is an expansion of that to include information on a variety of automobiles other than General Motors products and is unique in that regard. It is a two-year Associate of Applied Science Degree program with a rotation system that requires the student to spend eight weeks in the classroom, followed by eight weeks at a sponsoring dealership or automotive repair facility each semester for the duration of the program. During each eight weeks on campus, the student is also required to successfully complete an academic program making for a well-rounded technician. Because of the rigorous nature of the program, students are carefully screened, selected, and pre-placed in a sponsoring automotive agency.

The ATEC program differs from the General Motors program in that any dealership, automotive repair facility, or fleet operation is able to sponsor a student in the program. The concept works in practice because basic theory is emphasized in the classroom with more specific application in the lab and more importantly, the sponsoring dealership. It is an ideal opportunity for remote areas such as that serviced by San Juan College in the Four Corners Region, to bring in current training with the help of partnerships with major industry. General Motors supports the training with donations, and other corporations such as Ford and Chrysler are beginning to recognize the results and the recent National Certification (NATES) of the program with a promise of donations. The National Automotive Technicians Education Foundation team has approved this program in all eight categories. It is the only program in the state to receive such approval. Toyota Corporation has recently designated the College a T-Ten (Toyota Technician Educational Network) school.

The program is in its third year of operation and graduated its first class in May 1989. Students in the program are sponsored by dealerships and repair facilities in three states: New Mexico, Colorado, and Arizona. Several displaced oilfield workers are enrolled in the program with over half the students being minority (Hispanic or Native American). In November, 1989, the Automotive Program was recognized as the "Outstanding Automotive Program" in the state of New Mexico. The award was announced simultaneously with the announcement of the new General Motors ASEP program.

The program fulfills several recommendations put forth in **Building Communities**. It utilizes technology in teaching; it is allied with employers and has established a long-range partnership with business and industry. Successful students will enjoy a sense of accomplishment and security from knowing that they have attained a high level of technical expertise.

AUTOMOTIVE TECHNOLOGY

Des Moines Area Community College
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Contact Person - Chuck McFarlin

This program aggressively addresses numerous recommendations put forth in **Building Communities** including:

Assessment of reading, writing and math skills of all incoming students.
Integration of a literacy component including communication skills, math employment skills and human relation skills.
Working with employees to provide recurrent education.
Collaboration with industry with the goals of expanding student opportunities, increasing program quality and addressing industry's work force needs.

The primary mission of this program is to provide the automotive industry with well trained, technically current, literate, entry-level employees. In addition, this program strives to provide students with numerous options that address their needs including: full and part-time schedules, day and evening classes, two diploma options and three AAS Degree options in Automotive Technology.

One of the most unique characteristics of the automotive program is its extensive collaboration with industry. General Motors Corporation and Ford Motor Company have located their Iowa training centers within the automotive facility at Des Moines Area Community College. In addition, Chrysler, Mazda, Firestone, and I-CAR all utilize the DMACC facility for their update training needs. Further, both Ford Motor

Company and General Motors rely on DMACC to provide their dealers throughout the state with entry-level technicians through the General Motors Automotive Service Educational Program (ASEP) and the Ford Automotive Student Service Educational Training (ASSET) Program.

The extensive collaboration with the automotive industry has resulted in an Automotive Technology Program that is able to provide the very latest in training. This includes topics such as: Computer Controlled Anti-lock Brakes, Air-bag Restraint Systems and Computerized Engine Controls. The automotive industry has provided over one million dollars worth of vehicles, instructor training and materials to make this possible.

One of the most gratifying by-products of the emphasis on high quality, up-to-date training has been the high placement rates of students completing these programs. Since the move to a highly collaborative type of program with emphasis on both high quality technical training and sound basic literacy skills, there has been a substantial excess of employers trying to hire students from this program.

Other gauges of the success of this program include: certification in all eight areas by the National Automotive Technicians Education Foundation, a fully ASE certified teaching staff, being named the "Outstanding Automotive Program in Iowa" by the American Vocational Association/Motor Vehicle Manufacturers Association (AVA/MVMA) for the past three years, being cited as a "Special Merit" program by our institution, training most of the state VICA contest winners for the past ten years, two of the VICA National medalists within the last several years and being named the number two "Automotive Program in the Nation" by the (AVA/MVMA) for the past two years.

AUTOMOTIVE TECHNOLOGY

Seminole Community College
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Contact Person - Michael Short

Seminole Community College is currently offering two A.S. degree programs and two certificate programs in automotive technology. The automotive A.S. degree program started in 1986 and has enrolled 275 students since that time. Based upon the success of this program, the elaborate facilities, and the quality of the five full-time and four part-time members of the instructional staff, the Ford Motor Company selected Seminole Community College to offer its two-year factory sponsored A.S. degree program. General Motors has also selected Seminole Community College to represent them as a satellite training center for their dealership service technicians.

The most recent accomplishment of the automotive technologies department is the selection of Seminole Community College by the state of Florida to be one of only five schools to offer both the automotive core and the autotronics programs. These are both certificate programs and incorporate the use of the most advanced computer work stations, simulators and electronic trainers to teach technicians how to work on the latest high technology automobiles.

The automotive programs are designed to meet the needs of local employers. Co-operative education is essential to student success in the automotive programs and, therefore, the staff members have developed on-going relationships with local dealerships. Students are welcomed as interns while in the program and sought to fill positions upon graduation. The respect which the local automotive industry has for the Seminole Community College program is also reflected in the fifty or sixty currently employed technicians who register for the evening automotive update courses every term.

Seminole Community College has a strong automotive advisory council which meets monthly to review, discuss and evaluate the automotive programs and update training. The college has national certification through NATES and ASE and is a member of ASA.

With strong backing from Chrysler, Ford, General Motors and the state of Florida, Seminole Community College is able to offer its students hands-on training on the most advanced automobiles and equipment available. The 19,327 square foot facility, contains nine classrooms and fifteen service bays. Two laboratories contain twenty computer work stations and twenty electronics training stations. Staff are dedicated to making the best use of these facilities to offer the latest in high technology training for automotive service technicians.

AUTOMOTIVE TECHNOLOGY

Sinclair Community College
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Contact Person - Richard Erbaugh

In addition to the traditional associate degree, certificate and short-term noncredit educational opportunities, the Automotive Technology Program at Sinclair Community College offers the General Motors Automotive Service Educational Program (ASEP) and the Nissan Professional Cooperative Apprenticeship Program (PROCAP). ASEP and PROCAP are two-year degree programs that enable students to alternate between attending college and working.

The Automotive Technology Program is housed in a recently remodeled building that has 18,300 square feet. The program maintains twenty-one donated vehicles; with General Motors and Nissan providing more than thirty new cars annually as well as parts, and other teaching aids. Test and repair equipment valued at over $1,000,000 support the instruction as well as specialized Chrysler, Ford, General Motors and Nissan tools having a value in excess of $200,000.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: The number of graduates has quadrupled in the past six years and the five year (1982-87) placement rate of graduates in the field was 98.5%. Automotive Technology students received thirty-one scholarships for the period 1985-86 to 1987-88--including one of approximately 500 Felpro scholarships awarded nationally.

While many students require developmental courses at the beginning of their Sinclair education, they later excel in their courses. Thirty-eight percent of those who received associate degrees in Automotive Technology in 1985-86 were graduated with high honors or honors. Twenty-eight percent of those who received degrees in 1986-87 were graduated with high honors or honors.

The percentage of Sinclair Automotive Technology graduates employed in their field has been higher than the statewide average since 1982. They are employed in such areas as automotive technician, service advisor, service manager, automotive repair business owner, service station manager, public transportation manager, and automobile manufacturer zone manager. Salaries of students who graduated in 1988 ranged from $10,000 to $27,000, and the average salary was $17,301.

EXTERNAL RECOGNITION: The following are recent state and national awards earned by the Automotive Technology Program.

Year	Award/Certificate
1988	Ohio Board of Regents: Program Excellence Award and $146,500: Is the highest award bestowed to educational programs in public colleges and universities.
1988	Motor Vehicle Manufacturers Association: best automotive technology program in Ohio.
1987	National Institute for Automotive Service Excellence: ASE MASTER certification in all areas, the highest level of achievement recognized by ASE.
1986	American Association of Community and Junior Colleges: Annual Competition for Excellence in Partnerships, Business/Industry/College Programs. "In recognition of Sinclair Community College and the General Motors Corporation for establishing one of the largest and most productive alliances ever forged between a manufacturer and higher education."

BUILDING COMMUNITIES: The Automotive Technology Program at Sinclair Community College is a textbook example of an alliance or partnership with

employers. It currently has active training programs with: General Motors, Nissan, BP America (Sohio), Dayton Automotive Service Association, and Montgomery County Regional Transportation Association. Each year nearly 200 automotive technicians from these employers receive automotive training.

Not only does the program have a strong alliance with employers, it also utilizes state-of-the-art instructional technology. For example, students use interactive video materials for Ford Motor Company service training and computerized diagnostics for General Motors trouble-shooting. Using modern hardware and software donated by Reynolds and Reynolds, students learn methods of computerized service management.

UNIQUE CHARACTERSITICS: In 1981-82, Sinclair was the thirteenth institution selected by General Motors to participate in the ASEP program; currently there are thirty-two ASEP programs nationwide. Sinclair has cooperative agreements with thirty-one GM automobile dealers in Ohio, Kentucky and Indiana. The program was instrumental in forming the Ohio Automotive Technical Training Consortium and was selected by the state of Ohio's Department of Education to provide training for auto mechanic instructors from the state's vocational high schools.

All faculty members are certified by The National Institute for Automotive Service Excellence (ASE) as Master Automobile Technicians in all eight certification areas. Sinclair is one of the only community colleges nationwide to have all full-time faculty certified as Master Automobile Technicians.

Faculty regularly participate in specialized training courses, including approximately thirty days of General Motors ASEP training per year. Each is certified to teach at the General Motors Training Center. One faculty member serves as an active member of the Chrysler Arbitration Board for the southwestern Ohio region. Another faculty member has authored **Electrical and Electronic Systems** and **Automotive Chassis Systems** published by Prentice-Hall.

BIOMEDICAL ELECTRONICS ENGINEERING TECHNOLOGY

Cincinnati Technical College
3520 Central Parkway
Cincinnati, OH 45223
(513) 569-1500
President - Dr. James Long
Contact Person - Steven J. Yelton

DEMONSTRATED SRUDENT SUCCESS AND OUTCOMES:
Graduate Performance:
The BMET Program at Cincinnati Technical College consistently has an outstanding graduate placement record. The percentage of BMET graduates placed in technically-

related positions exceeds the norms for Ohio two-year graduates, both overall and in specific categories.

Survey of BMET graduates: Upon completion of the most recent graduate survey, the following data was compiled: 100% of respondents were employed; 78% of respondents were employed in a position directly related to the biomedical electronics field; 61% continued their education at the four-year level.

Survey of BMET graduate employers: Upon completion of the most recent employer survey, the following data was compiled: 75% employ CTC BMET co-operative education students; 100% rated BMET co-op students as at least "above average". When asked to evaluate graduates in areas relevant to their position responsibilities such as: quality of work, quantity of work, initiative, promotibility, trainability, and attitude, no one rated students as below average. One hundred percent of employers considered co-op students for full time positions upon graduation.

EXTERNAL RECOGNITION: The Accreditation Board for Engineering and Technology (ABET) is recognized as the national accrediting authority concerning the quality of engineering and engineering technology programs in the United States. The Technology Accreditation Commission (TAC) of ABET is responsible for the evaluation of programs in engineering technology. Both the day and evening BMET Programs at CTC are accredited by TAC-ABET. There are only three TAC-ABET accredited Biomedical Engineering Technology programs in the nation.

The BMET Program at CTC was featured in **The Journal of Clinical Engineering** report on Biomedical education. The article outlined the program's curriculum and discussed the uniqueness of the co-op requirement in the two-year program.

BUILDING COMMUNITIES: The Alice P. Bruckman award for teaching excellence and the Clifford House award for excellence in co-op education coordination are awarded annually at CTC. These awards carry a cash stipend as well as recognition from the college community. In the five-year existence of these programs, the BMET Program has had a person nominated every year in both categories.

UNIQUE CHARACTERISTICS: The BMET Program incorporates a co-operative education program into the normal curriculum. The CTC-BMET student works in an approved, technically related position with a hospital or company. The two-year curriculum combines alternating ten-week terms of school and work experience. The student, upon completion of his two-year program, has completed fifty weeks of related work experience. The BMET student typically earns from $2,000 to $2,500 per term.

The BMET Program as part of its teaching faculty, uses the Director of Clinical Engineering from the Christ Hospital in Cincinnati, Ohio. This person is employed to teach the two courses in Biomedical Instrumentation. Approximately 40% of the class meetings for these courses occur at the Christ Hospital. This collaboration provides the

student with a unique opportunity to become exposed to facilities and equipment that would be cost prohibitive for the College to provide on campus. The BMET Program also has a biomedical instrumentation laboratory on campus which utilizes biomedical test and analysis equipment, electronics test equipment, including digital storage oscilloscopes, voltmeters, waveform generators, etc, as well as portable computers.

The program requires students to study the 68000 microcomputer in great detail. The student is required to take courses in hardware and assembly language software to be able to design, modify, and troubleshoot hardware and software for the 68000. The 68000 is a "state of the art" sixteen bit microprocessor. The BMET student is also required to take a course in "C" language programming and be able to use "C" in problem solving tasks for all of the technical courses.

B-FIT (BUILDING FUTURES IN INDUSTRY AND TRADES)

Portland Community College
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Portland, Or 97219
(503) 244-6111
President - Dr. Daniel Moriarty
Contact Person - Gail Smith

A partnership of labor unions, employers, social service agencies and Portland Community College is behind a federally funded demonstration program to increase the number of women in high-paying skilled construction, mechanical and electrical trades.

The successful Building Futures in Industry and Trades (B-FIT) Program provides a blueprint for other community colleges and vocational technical training programs to follow to reverse the sharp decline of women in skilled trades and the lopsided concentration of women in lower-paying service and clerical jobs.

While World War II brought about a most profound increase in opportunities for women to train and work at skilled trade and industry jobs, it was unfortunately also the high-water mark. Over the past six years, in Oregon and the nation, the number of women applying for apprenticeship positions has been extremely small and declining rapidly. In 1987 only 3.4% of Oregon's apprentices were female, down from 5.9% in 1986.

Despite efforts to close the earnings gap, women place shockingly lower in wage level than men, averaging forty-four cents for each dollar earned by men in 1984. Yet, the number of families maintained by women is growing rapidly and increased almost 90% between 1970 and 1985. This phenomenon led one national advisory commission to the dire prediction that female-headed families would comprise 100% of the poverty population by the year 2000.

This prediction need not come true if we have a robust economy and the commitment to provide specialized training and assistance for women to enter and to succeed in the trades.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES:

Goal: To recruit 175 women and place 100 in training program

Outcome: 500 women were recruited 106 placed in program, ninety-seven currently on waiting list, to register for next training cycle in June

Goal: To graduate 80% of trainees and place 70% of graduates in non-traditional careers in industry or apprenticeship training.

Outcome: Including current training cycle 83% of trainees will graduate by June 1990. 75% of the first cycle graduates have secured non-traditional employment and apprenticeship positions in the following trades: carpentry, plumbing, electrical, diesel mechanics, sheetmetal, autobody, landscaping, millwright, refrigeration, heavy equipment operator.

Average wage before program was $5.40 per hour. Average wage after program completion was $7 per hour, entry level in career trades that will pay $15 to $25 per hour at journey level.

EXTERNAL RECOGNITION: Regional and National program presentations:
Northwest Regional Education Lab Conference November 9, 1989
American Association of Women in Community & Junior Colleges Conference, December 1, 1989
American Technical Education Association National Conference, University of Oklahoma, March 29, 1990

Media Coverage:

Television coverage by Channel 2,6,8,12:	June - December 1989
AM Northwest special on women in trades:	June 1989
KXL Radio Talk Show:	May 1989
Newspaper coverage: Ten articles	June 1989 - Feb. 1990
Oregonian, Daily Journal of Commerce, Building Industry Journal, Hillsboro Argus	

Project Information Dissemination:
Fifty local and national organizations contacted, materials distributed, presentations made, including high schools, community colleges, displaced homemaker programs, trade unions, industry, local government.

Additional grants secured for student resources:
Fred Meyer Foundation - $8,000
State of Oregon Voc-Ed - $5,000
Adult & Family Services (welfare)

CHEMISTRY LABORATORY TECHNOLOGY

Cecil Community College
1000 North East Road
North East, MD 21901
(301) 287-6060
President - Dr. Robert L. Gell
Contact Person - Dr. F. Darcy Williams

The Chemistry Laboratory Technician (CLT) Program at Cecil Community College meets all the criteria for evaluation as an Exemplary Instructional Program as set forth by the NCIA.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Of the forty-one students currently enrolled in the program, more than half are employed as laboratory technicians on a full-time or a part-time basis in twelve different companies and three municipal operations. Ten of those students secured their employment as a direct result of being enrolled in Cecil's CLT program. The remainder have enrolled in the CLT program at their employers' recommendation as a means of career development and advancement.

Employers uniformly evaluate the program as a success in terms of providing a comprehensive educational background and technical training to students. The first six students to complete the rigorous academic and cooperative education schedule graduate in May, 1990. Four have offers of full-time employment in the chemical lab community upon graduation. One is currently seeking a new position and the last student has chosen to move to the administrative side of the business world. Retention rate has been approximately 80%. Of those who have left the program, one has transferred to a four-year college, one left the area and enrolled in a similar program and three have transferred to other programs of study at Cecil.

EXTERNAL RECOGNITION: The CLT program at CCC has been recognized as an innovative program for training lab technicians at the 97th 2YC3 Conference on Chemical Technical Education, 1987. In 1988 the program received funding from a private foundation, a corporate sponsor and NSF in the form of an ILI grant, one of only thirty nine awarded to two-year and community colleges. In 1989 the program was nominated and received a Certificate of Merit from the Maryland Council for Vocational Technical Education as an outstanding program in the state.

BUILDING COMMUNITIES: The CLT Program was established in 1987 as a direct result of what was then an informal industry-college partnership. Building on recommendations by representatives of the local chemical industry and accessing a need for technological education, the College convened a DACUM panel to establish a job description, a complete occupational matrix and task specifics for the well-trained Chemistry Laboratory Technician.

College faculty reviewed the list of seventy task statements, required knowledge areas, equipment skills and general characteristics obtained during the two-day DACUM workshop. A program of study which includes sixty-seven credits and leads to an A.A. degree was developed,submitted to the Maryland SBCC and approved in April, 1987.

Of special concern to the College was the need to address the academic goal of providing a "first rate technical education and career-related program" as outlined in **Building Communities**. To this end, the program requires a core curriculum of twelve credits of chemistry, four of physics, four of biology, and seven in computers in addition to freshman composition, technical writing, six credits of math including statistics, speech, seminar, two chemical instrumentation labs and two co-op work experiences.

The seminar series was designed to provide students with a professional perspective on being a chemical laboratory technician. Using college staff and guest lecturers from industry, students are presented information pertaining to developing interpersonal skills, job interviewing techniques, the principles of industrial research, expectations of employers and theoretical applications of specific scientific knowledge to the industrial workplace.

Chemical Instrumentation I and II and the two cooperative education work experiences were designed to provide students with the principles and practice of scientific instrumental and chemical analysis as active learners (goal from **Building Communities**). Through lecture, on-campus laboratory experience and on-the-job industrial lab experience, each student is taught some of the specific job skills required for employment in the chemical industry. While learning safe lab procedures, accurate record keeping and data management, each student is exposed to the rigors and expectations of the workplace. By requiring them to become contributing members in an industrial setting, CCC has succeeded in fostering in the CLT students a sense of the importance of education and the significance of technology in their employment futures. It has also enhanced the sense of community with local employers and provided a realistic view for educators and students alike of the economic trends in the area.

UNIQUE CHARACTERSITICS: Cecil's CLT program is unique in its emphasis on the importance of the industry-college partnership. This is demonstrated in (1) the use of fourteen laboratory technicians and supervisors for the DACUM panel, (2) the formalization of the twelve-member industrial Advisory Board, (3) the incorporation of guest speakers from industry into the seminar series and (4) the requirement that all students complete two cooperative education work experiences prior to graduation.

COLLEGE/INDUSTRY JOB TITLE TRAINING

Indiana Vocational Technical College
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President - Sam Borden
Contact Person - Dale Mowbray

The Indiana economy is undergoing a tremendous amount of change due to an increase in the global economy, escalating technological change, new ways of organizing the workplace and workplace demographics, thus presenting an enormous challenge to Indiana Vocational Technical College (Ivy Tech) to meet the needs of the students, of business and industry, and the community.

One of the recommendations, as stated in **Building Communities**, has been a priority at Ivy Tech. The recommendation is as follows: "Partnerships with employers for the training and retraining of the community's workforce must be recognized as an important component of the continuing education program in the community colleges."

The College/Industry Job Title Training Program is designed to train individuals for specific technical level jobs existing in business and industry. It is delivered in a fashion that will structure and strengthen training programs for business and industry by combining the resources of business and industry with those of Ivy Tech to from a more complete and professional level of technician training. The Ivy Tech experience will provide the employer/student with practical, new technology, real world of work training, for the specific job. The program objectives are as follows:

To provide performance based training for students in specific job titles existing in business and industry.
To maximize the number of technical level training opportunities available within the region.
To provide a structured image between business, industry and Ivy Tech to meet the challenge of providing new technological training within Region 07.
To recognize the level of achievement of students who complete job specific training programs.
To provide a system for maximizing the human development potential of employee/student to form a more productive work force.
To assist students with the development of an articulated career progression path.

By completing the College/Industry Job Title Training Program, students earn a certificate in a major area such as Electronics, Industrial Maintenance or another specialty area of their choosing. Work completed in this program can then be applied toward an associate degree.

This program has been successful for a variety of reasons. One of those reasons being flexibility. Examples of how employers have used this program are as follows: One

company wanted the program very structured. The employees would learn specific skills in the area of maintenance. The employees progressed through the program as a group, taking one course at a time. Another company gave their employees a list of core courses that were required. The employees could then choose electives to take with the stipulation that they would be related in some way to the core courses.

Yet another company allowed the employees to choose the course of study in which they were interested. The company encouraged the employees to build on their current skills or to obtain new skills as well as to increase the employees' self-esteem. Due to deregulation, the company was anticipating lay-offs and wanted the employees to have the skills needed to get a new job. Of the employees who completed the training, six of them continued training on their own and obtained an associate degree.

This program has been recognized nationwide through the companies using the program locally to their parent companies in other states.

COMPUTER INTEGRATED MANUFACTURING

Springfield Technical Community College
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Springfield, Ma 01105
(413) 781-7822
President - Andrew Scibelli
Contact Person - John R. Warner

The Computer Integrated Manufacturing Program, although officially a new program at Springfield Technical Community College, actually has roots that extend to the time when the college first opened its doors in 1968. At that time, formal training in metal machining and drafting and design began with the college offering an Associate in Science Degree in Mechanical Technology. In addition to metal machining courses, offerings in inventory control, production control and manufacturing processes were included in these early curriculums. Throughout the years, the program has advanced itself and has graduated hundreds of trained technicians in the field of mechanical technology from both its day and evening divisions. Approximately five years ago, these programs were significantly upgraded through the addition of personal computers and associated computer aided drafting and design and computer aided manufacturing software packages. Additionally, computer numerically controlled machines were added to the program.

More recently, however, Springfield Technical Community College was invited by IBM Corporation to become a member of the IBM CIM in Higher Education Alliance. Essentially a three-year grant, the IBM Alliance has provided nearly $600,000 worth of computer hardware and software to the College, thereby enabling the college to offer its first course offerings in Computer Integrated Manufacturing. This CIM concept electronically links together the College's Business and Engineering

Technology Divisions and enables them to provide modern training in flexible automation systems. Students in the Business Division can explore, for example, the many ways in which computer technology can be used to improve efficiency, quality, cost control and therefore profits in the world of business and industry. Students in the Engineering Technology Division will similarly benefit through the technological upgrading of equipment made available through this alliance. Courses in statistical process control, robotics and CIM applications, as well as a complete two-year Computer Integrated Manufacturing option to the Mechanical Technology Program, are offered in both day and evening divisions.

The Division took an integrative approach to the use of the CIM technology in the curriculum. Training was made available to interested faculty members by arranging for on-site instruction. This enables integration of appropriate, CIM modules into a wide range of business courses, from personnel management to accounting to production control. Students in these traditional courses spend from one session to several weeks working with a simulated company on the data base, and getting familiar with not only the theory of computer-enhanced management and projection techniques, but also with the way they look, feel, and operate. Additionally, the AS/400 on which the MAPICS software operates will be used to teach RPG in the IBM environment, something which was determined to be in great demand in the College's service area.

In implementing the CIM technology, the College did not forget its mission to the developmental student. Academic tradition has often been that the very best in computer and other technical equipment is reserved for research and upper level classes. STCC believed that this technology could be used to both teach and inspire even the under-prepared and undecided student. The MAPICS software is therefore, for example, being used to enhance a recently revamped course entitled "Introduction to Business" for non-business students. This course uses computer graphics and video lecture techniques combined with student use of IBM terminals to view the components of a simulated manufacturing facility. The technology is also being introduced to students in such first semester courses as "Principles of Management."

The advent of CIM technology to the STCC campus has been the catalyst for many positive changes; some were anticipated and some were only apparent as the College began to use the equipment. It has certainly bolstered the curricula of both the Engineering Technologies and Business Divisions. In addition, it has fostered a much closer working relationship between these academic areas. It has been a magnet to manufacturers and business people within the community, who have increasingly seen their Community College as a source of technical expertise, information, and training. It has also inspired both students and faculty on every level to look at the way we teach basic and upper level courses, and to think seriously about not only teaching about technology and its effects, but to letting students experience these effects experientially through creative and expanded classroom and laboratory instruction.

COMPUTER TRAINING

Harry S. Truman College
1145 West Wilson
Chicago, Il 60640
(312) 989-6125
President - Wallace B. Appelson
Contact Person - Melenne Mosquera

The Truman College/Association House Computer Training Program is a collaborative venture that brings together the resources of a community college, a social service agency, and major corporations for the purpose of converting "at risk" students into academic achievers and skilled workers. It is the only college-level program in the City Colleges of Chicago that is specifically, though not exclusively, designed for Hispanics.

Candidates selected for the program are required to have a high school education (diploma or GED), be highly motivated to participate in a demanding, but supportive, educational/training program and belong to an economically disadvantage group. A profile of the ninety students currently enrolled indicates that 70% are Hispanic and 15% Black, 40% are on public aid, 20% hold full-time or part-time jobs, 10% are married and 30% are single parents. Their average age is twenty-five, although the age range is from eighteen to fifty-five.

Students enrolled in the Computer Training Program are expected to earn thirty-one college credits and receive an "Advanced Certificate in Computer Operations" within a twelve months period. The curriculum, which was developed jointly by Association House staff, Truman College faculty and business leaders, includes mathematics, English, business and computer development. Students are given placement tests to determine their proficiency in mathematics and English and placed in appropriate level courses in those disciplines, but they are required to pass English 100 and Mathematics 100 before receiving the Advanced Certificate.

Highly qualified program staff,most of whom are Hispanic, provide on-going personal, academic and career counseling. The publication of a quarterly newsletter and fundraising activities teach students organizational and team work skills. Discipline and a sense of responsibility are stressed throughout the program and are reenforced through the Student Standards Committee which advises staff on disciplinary matters.

Over 700 "at risk" students, have participated in the program since its beginning in 1981, and 76% have earned their certificates. In 1989, 40% of the program participants made the Dean's list, with a grade point average of "B" or better, compared to only 8% of the general Truman College student population. Over 65% of those who graduate are employed immediately as computer operators or in related areas, and 89% are still on the job one year later. Although that is not one of the short range goals of the program, approximately 16% of the completers choose to continue studying, full or

part-time, toward a college degree. Some of them have received graduate degrees, are now managers in high tech industries and return to recruit graduates of the program to work in their companies.

From the very beginning, the Computer Training Program was perceived as a worthwhile venture. The seed money for establishing the program was given by the Macarthur Foundation, which funded it for four years, an exception to their policy of funding new programs for only one year. The success of the program has stimulated other major corporations and foundations to support it with money, technical expertise, steering committee membership, and/or employing graduates. Some of the most staunch supporters are: The Borg Warner Foundation, IBM, Bell and Howell, Coca Cola Corporation, the Joyce Foundation, Illinois Bell, AT&T, American National Bank, Washington National Insurance, the Chicago Board of Options Exchange, and the Chicago Community Trust.

In 1986, the Coca Cola Corporation published a nation-wide study on Hispanic issues and listed the ten agencies that work most effectively with Hispanics. Eight of these were national agencies and only two served local communities. One of the two was Association House of Chicago. The Borg Warner Foundation highlighted the Computer Training Program in its 1987 Annual Report, and in 1988, the United Way used the Program in its Crusade of Mercy appeals campaign.

This program addresses the following important recommendations put forth in **Building Communities**: that community colleges develop an aggressive outreach plan for disadvantaged students, that they give more attention to student retention, and that the reading, writing, and computational ability of all first-time community college students be addressed when they enroll.

CORPORATE AND CABLE COMMUNICATION

Borough of Manhattan Community College
199 Chambers Street
New York, NY 10007
(212) 618-1571
President - Augusta S. Kappner
Contact Person - Sadie C. Bragg

The CCC Program, leading to the A.A.S. Degree, prepares students for entry level videotape production and operations positions by offering instruction in studio production, electronic field production, post-production, lighting, teleconferencing and budgeting. Its philosophy of intensive hands-on training with state of the art equipment in a 1.5 million dollar media center makes it special. The center consists of two production studios, a post-production center with six off-line editing suites that vary in levels of technical sophistication, an Electronic Field Production office with five portable video systems and two on-line edit rooms. In the classroom, the very

low ratio of students-to-equipment is unrivaled among community colleges throughout the country. In addition, students log hundreds of hours of editing lab time beyond regular class periods, working one-on-one with the equipment. Nineteen ninety will see the completion of a total upgrade of both production studios to broadcast level. The larger of the two studios will also function as a teleconferencing origination site bringing students a first-hand experience with 21st century technology. An in-house computer graphics lab will also expand to include student utilization.

The program, with an enrollment of 388, strives to foster a sense of institutional loyalty by keeping classes small, usually around eighteen students for a production class. The student loses the sense of anonymity so often a part of the urban commuter college experience as he or she is encouraged to work in small crews within the class. This bonding introduces the notion of networking to the students, a tool that will become so important in their later careers.

Every semester, a colloquium is held with guest speakers such as the producer of "Yo, MTV Raps". These get-togethers have a dual purpose -- to expose the students to "real world" contacts, as well as giving them an opportunity to socialize among themselves in a relaxed setting outside the classroom. Our advisory board, whose members are managers at facilities such as Manhattan Cable TV, Glynet Productions, and Equitable Life, also attend, often to scout for future employees. The program's relationship with these companies and others like Financial News Network and Entertainment Tonight, provides an on-going conduit for job opportunities for graduates.

Students experience the industry, first-hand through the cooperative education internship program. To qualify for the AAS Degree, students must make a fifteen hour a week commitment to work in the field with a participating company. Media companies now seek out the program as a source of talent for their internship pool. An employment offer often follows the successful completion of an internship.

While nearly half of our students continue their studies at four-year colleges before beginning their careers, many students enter the work force immediately following graduation. The following are some of the organizations where alumni have found positions as camera operators, producers, directors, technical directors, grips, gaffers, editors, audio personnel, master control operators and production assistants: Entertainment Tonight, Private Satellite Network, Fox TV, MTV, Manhattan Cable TV, B/Q Cable TV, Staten Island Cable TV, Panavideo, Giraldi Productions, Avektas Productions, Travel Channel, JC Penney, Financial News Network, Editel, CUNY TV, National Video, Execucomm, Inner City Broadcasting, Nickelodeon, and Glynet Productions.

Much of the funding for the equipment used by the students comes from outside agencies, and a policy of sharing resources with other college programs is encouraged. The Professional Video Training Program supported by grants from the NYS Department of Labor among others trains film union personnel, as well as women and minority video professionals, in video skills from basic editing to computer graphics.

THE CORPORATE COLLEGE

Elgin Community College
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Elgin, IL 60123
(708) 697-1000
President - Dr. Paul Heath
Contact Person - Eric A. Larson, Barry Karow

Safety-Kleen Corporation, Elgin, Illinois and Elgin Community College have jointly developed an exciting, new educational opportunity for those interested in entering the field of business.

This innovative cooperative program provides students with classroom instruction and field experience on-site at Safety-Kleen, an Elgin firm recognized as the world leader in the recycling of cleaning solvent wastes. These wastes are recovered from services provided to the automotive, industrial, dry cleaning, and restaurant industries.

Started in the Fall 1988 term at Elgin Community College, the program of study is designed to prepare students for business careers with industrial organizations.

Structured classroom teaching provides a knowledge of corporations in general, while field experience courses, taught by representatives of Safety-Kleen personnel, provide "real world" experience for the students. Through these work experience courses, students have the opportunity to acquire practical skills by observing and interacting in the day-to-day operations of Safety-Kleen Corporation.

In addition, students are taught the necessary human relations techniques for good communication between managers and subordinates, and they are exposed to various sales techniques and marketing strategies used by Safety-Kleen.

Upon completion of the program, students are awarded an Associate in Science Degree and possibly offered employment with Safety-Kleen. However, the degree, course work, and valuable experience in actual work situations are excellent preparation for employment with any firm in the chemical waste by-product field.

The "corporate college" educational plan identifies those courses a student should take in order to meet requirements toward a baccalaureate degree as well as acquire the specific educational background to become a Safety-Kleen employee. A student follows an academic ladder beginning with program certificates, and continuing through an associate degree and beyond, while gathering valuable experiences related to career choice and career development. Should the student be offered a position, a well-prepared, carefully selected, and highly motivated employee is the end result. In either event, the student is well positioned to continue pursuit of further formal education. Also, as a transfer oriented program, the associate degree prepares the graduates to pursue a bachelor's degree in business.

The use of telecourse instruction for six required courses enables the College to offer instruction to Safety-Kleen employees anywhere a VCR is available. This includes, but is not limited to, any Safety-Kleen location nationwide as well as the privacy of the students' home. In addition, the "corporate college" courses offer Safety-Kleen the opportunity to include specific training topics deemed necessary for a student or potential employee to function within the company.

Courses not available on a telecourse basis are taken at any one of the more than 1200 community or junior colleges across the nation. Credit taken at other institutions is transferred to Elgin Community College and applied to the program graduation requirements. Part of the educational counseling function provided Safety-Kleen employees is a list of the names of educational institutions near their homes where needed courses are available. Elgin Community College functions as the Safety-Kleen "corporate college," centralizing all educational counseling and graduation requirements through one institution, rather than 1200 different institutions.

As the "corporate college," Elgin Community College provides a variety of educational counseling services. First, each employee receives periodic academic reports. These reports are intended to reassure employees regarding their status toward completion of a certificate or degree and also promote employee retention and continued participation in desired course work. Second, as employees begin the "corporate college" program, a career assessment package is administered and individualized educational counseling takes place.

Safety-Kleen, as a world-wide organization, has diverse recruiting and training needs. The location of current branch offices is linked to existing local educational facilities where Safety-Kleen employees pursue required course work. The linkage of employees and institutions is provided as a part of the educational counseling services from the "corporate college." By identifying the institutions near current Safety-Kleen branch offices nation-wide, those same institutions may serve as a focal point for recruiting new Safety-Kleen employees.

DESIGN ENGINEERING TECHNOLOGY

Stark Technical College
6200 Frank Avenue, NW
Canton, OH 44720
(216) 494-6170
President - Dr. John McGrath
Contact Person - David Wileman

UNIQUE CHARACTERISITCS: Integration is the new buzzword for engineering fields in the 1990s and beyond. As Joseph Bordogna, Dean of the University of Pennsylvania's School of Engineering and Applied Science, stated in a recent article in

Engineering Education the vision of engineering education for the 21st century should be "based on the notion that the engineer's essential role in organized society is an integrative one."

The concept of integration, however, is not new to the Design Engineering Technology Program at Stark Technical College. STC's Department Head of Design/Mechanical/Industrial Engineering Technologies, Dave Wileman, foresaw this trend two decades ago when he did his master's thesis on the integrative vs. the compartmentalized approach to education. He since has made integrative thinking and practices an integral part of the DET curriculum, thus advancing the program into the realm of excellence.

Such integration is achieved in program courses, equipment and faculty. Not only are both conventional and electronic design modes utilized, but a comprehensive array of subject matter encourages students to think as design technicians and also apply design principles in a practical manner. Compartmentalization of subject matter is discouraged -- the end result being an integrated technician who has a broader sense of his/her function in relation to others in the manufacturing process; a competent team player who can have a marked impact on an industry's ability to keep or regain a competitive edge in the world marketplace.

The DET program's quality is reflected in a variety of ways. Since the program graduated its first students in 1973, the placement rate has averaged 98.5 -- four points higher than the institutional average for that period. (That compares favorably to an 89% average for similar programs at Ohio community and technical colleges.) The near perfect placement also is considered excellent in light of the fact that in recessionary times, Stark County generally has one of the highest unemployment rates in the state. Participation in the College's Cooperative Education Program has enhanced the educational process, as well as placement. A total of 153 students have co-oped with local industries over the past eleven years (nearly half of those at one industry). A considerable number of DET co-ops who have graduates were offered and accepted jobs with their co-op employer.

DET graduates' satisfaction with the program and success in the work place are well documented. Their ability to apply their education in several different design areas has enhanced their employability locally, regionally, and nationally. Among the repeat employers of STC DET graduates is one of the largest research and development facilities in the U.S. - Sandia National Laboratories of Albuquerque, NM. It has recruited students from the program for thirteen years.

EXTERNAL RECOGNITION: The program is one of only thirteen such programs in the nation accredited by the Technology Accreditation Commission of the Accrediting Board for Engineers and Technicians (TAC/ABET). It received its first TAC/ABET accreditation in 1977, its second in 1981 and third in 1986.

An even more significant demonstration of success occurred in 1986 when the Program received an Ohio Board of Regents' Program Excellence Award of $113,890.

DET was one of only twenty-two programs at Ohio public colleges and universities sharing $3 million -- their selection based purely on a demonstration of excellence.

BUILDING COMMUNITIES: The College has addressed or is in the process of addressing many of the recommendations put forth in this AACJC study. Among the more significant ones impacting on the DET program are the following:

Equality of opportunity -- AutoCad courses have enabled handicapped students to successfully participate in the program and a Minority Recruitment Program is getting greater numbers of blacks interested in higher education and technical career training at Stark Tech.

Tech Prep curricula have been established at several of the larger area high schools and articulation agreements are being established with all local high schools.

The College maintains an active economic development role within the Greater Stark County area, with DET faculty having a long-standing tradition of involvement in industry training projects. The College also plays a leadership role in a statewide consortium dedicated to state-of-the-art faculty training.

DIGITAL ELECTRONICS/TELECOMMUNICATIONS

Eastfield College of the Dallas Community Colleges
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Mesquite, TX 75150
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Contact Person - Ed Ruggiero

The Digital Electronics Program is currently the largest in the state of Texas with an unduplicated head count of 782 students and total contact hours ranging from 70,000 to 100,000.

The goal of this program is to provide the theoretical and hands-on training needed to secure positions in the electronics industry. The program has been meeting the demand for electronics technicians in the Dallas area since its inception in 1970 with a total of almost 900 graduates and many more "completers" who did not receive a degree. Graduates are currently working at companies such as Texas Instruments, Rockwell International, MCI, E-Systems, Fujitsu, AT&T, and Digital Switch Corporation. Many graduates have gone on to complete electrical engineering, business administration, and more recently, engineering technology and telecommunications degrees from Texas A&M, University of Texas at Arlington, University of Texas at Dallas, and SMU.

This program is recognized by the area electronics industry and supported by their participation in the Advisory Committee, by donations of equipment, and by sharing of talent and training. All four full-time faculty members have worked for Dallas area electronics companies. The twenty-five to thirty adjunct faculty all work in the industry and bring their particular knowledge, skills, and insight to help round-out the curriculum. The division chair of Engineering/Technology/Computer Science, of which the Electronics Technology Program is a part, has seventeen years of experience in the electronics industry. Two full-time instructional associates also support this program.

Growth, flexibility, and change are descriptors of the electronics industry and are also indicative of this program. Local industry, faculty members, staff and administrators take an active interest in the program. This is reflected in the quality education available for the students. Though large, a true team spirit permeates the program with a genuine interest in each student and endeavor to provide the best possible training.

The Electronics Technology Department has an outstanding record of building communities. The following are a few examples:

Articulation with secondary education
Custom training for industry
Training for the hearing impaired
Developing telecommunications program/curriculum to meet industry needs
Presenting free technical seminars

Articulation into the electronics programs has benefitted students for a number of years. In this program a student receives college credit for electronics training received at the secondary level. For the past two years, high school seniors have attended electronics classes at Eastfield during the afternoons and for this earn "dual" credit (high school credit and college credit).

Providing a custom training program for AT&T Technologies, Mesquite Works facility, required the Electronics Department to work closely with the company's administrators and with union representatives. Training was conducted on the new product line, uninterruptible power supplies, for 160 technicians. Over the years, the Electronics Department has developed and conducted training for numerous other companies such as E-Systems, Rockwell International, AT&T, Dover Elevator, Boeing, Texas Instruments, and the city of Dallas.

Last year the College ET Department worked through Eastfield's Regional Center for Gallaudet University to provide Military Standard 2000 training. This program allowed a group of ten hearing impaired individuals to gain a higher level of compensation. The program was unique in that the instructor was hearing impaired and modifications had to be made to teaching aids.

AT&T's Alliance Program contacted the Department to provide retraining for workers caught in a lay-off. A group of ten students started the program and of that group two have continued their education and earned an associate degree.

In response to an emerging new industry, telecommunications, the ET Department initiated, developed, and implemented an associate degree curriculum to meet the industry's needs for trained technicians. Eastfield's Program is growing and has some seventy students with fifteen graduates to date working for DSC Corporation, MCI, Texas Instruments, and others.

The ET Department attempts to reach beyond its already large population of 700+ students to share information with the entire student body and the surrounding community. This is done by presenting free seminars on current electronics technology. Half day seminars and workshops have been conducted on topics related to the Motorola 68000 technology and local area networking.

The department through its network of graduates, current students, adjunct faculty, industry contacts and various business liaisons maintains a strong communication channel. Individuals associated with Eastfield's Electronics Department feel loyalty and commitment to the program. The department often receives placement calls from graduates who are now in a position to hire employees. They know the curriculum and are confident in the applicant's training. Support of the program comes by way of equipment donations. A recent donation valued at $30,000 came from a part-time student who knew that a particular instrument would benefit the program and then used his influence with his company to help obtain the donation.

This year the ET Department updated much of its lab equipment with a $107,000 allocation from the Dallas County Community College District. This is indicative of the kind of administrative support the program has and the district's dedication to quality education.

DRAFTING AND DESIGN TECHNOLOGY

Bergen Community College
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Paramus, NJ 07652
(201) 447-7170
President - Dr. Jose Lopez-Isa
Contact Person - Dr. Mary Robertson/Dr. Walter Chizinsky/
Mauro Marzocco

The Drafting and Design Program was initiated at the request of the major engineering firms in Bergen County. Engineering firms, such as Burns and Roe and Permutit, had found that they were "pirating" drafting and design technicians from each other since there was a lack of skilled technicians in this area. Representatives from these

business and industry firms met with the vice president/dean of instruction to design a curriculum that would provide a focus to their job needs. In addition, the representatives accompanied the College team to the State Department of Higher Education to present the curriculum for approval. Since the initiation of the curriculum, nearly 100% of the students have found positions in business and industry in the area. The Drafting and Design Program has matured over a ten-year period under the active guidance of a Technical Advisory Committee who have continued this linkage to business and industry. This has allowed the program to respond to changing technical and employment trends.

A recent collaborative effort between the Drafting and Design Program and other disciplines at the College has enabled the College to win a million dollar-plus Challenge Grant through which a Computer Aided Drafting Certificate program was initiated in a new $250,000 CAD lab. The foundation work in CAD, by a member of our Drafting and Design faculty, gave the College the credibility to be able to handle the state-of-art technology proposed for this grant.

A description of the program's strengths and innovations follows: There is heavy emphasis on descriptive geometry, through the courses Engineering Graphics I and II. The first course emphasizes the applications of geometry in drawing, and on problem solving, to enhance preparedness for potential future supervisory positions. The second course emphasizes computer problem solving, utilizing AutoCad for problems dealing with developments, civil engineering, mining, map drafting, etc. Field trips to engineering firms supplement the effort to relate geometry and CAD to various areas of design, including the medical field (i.e., artificial joints).

Technical Illustration, a required course, stresses advanced isometric, diametric, trimetric, and perspective drawing, in addition to shading through surface-treatment techniques, including airbrush. Since few drafters have such skills, our students are prepared for specialized and often sought-after positions requiring skills in this area.

Our overall program requires basic courses (Drafting I and II) in mechanical drafting as a basis for architectural and other specialized drafting areas, as it is our philosophy that mechanical drafting provides the basics of all other drafting areas.

Former students often say our program has prepared them better than most of their co-workers because of the emphases described above. We enjoy a reputation such that many companies in our area request job applicants from Bergen Community College and give preference to our graduates because of their preparation and performance. Our students often advance quickly because of their reasoning and problem-solving skills in graphics and design challenges.

In addressing the concepts of **Building Communities**, the Drafting and Design Program has developed several articulation agreements including a recent one with Montclair State College; the program has a strong general education component with emphasis upon English as well as mathematical skills. The College has a general education core curriculum including communication skills, humanities, social sciences,

and science and mathematical skills; the humanities component includes an appreciation of the visual and performing arts. The Drafting and Design Program focuses on problem-solving components as well as technical education skills.

As a component of the Challenge Grant, the program is reaching out to high-risk students from two high schools with significant minority enrollment. On Saturdays, these students work with faculty members to learn elementary CAD skills.

From its innovative launching to the articulation agreements, partnerships with schools, partnerships with senior colleges, and municipality alliances, this Drafting and Design curriculum represents outstanding faculty leadership and faculty development of a curriculum, cooperative education, and work placement.

ENGINEERING SCIENCE TRANSFER

North Shore Community College
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Beverly, MA 01915
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President - Dr. George Traicoff
Contact Person - Dr. Nancy M. Alberto

The Engineering Science Transfer Program provides the first two years of an engineering education leading to a Bachelor of Science Degree. This program prepares students for transfer into the junior year of a four-year engineering curriculum. The program's course selection provides flexibility, enabling a student to specialize in chemical, civil, computer, electrical, industrial, mechanical, nuclear or plastics engineering.

The sixty-nine credit program consists of English composition (six credits), humanities or social science electives (six credits), Calculus (twelve credits), Differential Equations (four credits), Calculus-based Physics (twelve credits), General Chemistry (eight credits), Programming in Fortran77 (four credits), Introduction to Engineering (two credits) and Engineering Electives (fifteen credits). The Engineering Electives include: Principles of Computer-Aided Design I and II (four credits each), Organic Chemistry I and II with Laboratory (four credits each), Programming in Pascal I (four credits), Mechanics I -Statics (three credits), Mechanics II -Dynamics (three credits), Strength of Materials (three credits), Material Science (three credits), Thermodynamics (three credits), Introductory Circuit Theory I and II with Laboratory (six credits each), Introduction to Logic Design (four credits), Technical Drawing (four credits), Surveying and Cartography (three credits), Physics IV - Modern Physics (four credits) and Technical Writing (three credits). In addition, the engineering science students are encouraged to take advantage of the Honors Option and the Cooperative Education Experience which may enhance engineering transfer opportunities; the Honors Option challenges highly motivated students, provides a very rigorous academic environment,

and broadens the student's exposure to the liberal arts as well as social and cultural activities. The Cooperative Education Experience allows the student to gain employment experience in an environment related to his or her career goals.

The College has established transfer agreements with four-year colleges and universities which offer a Bachelor of Science Degree in Engineering. The transfer agreement enables a student who fulfills the degree requirements of the Engineering Science Transfer Program to transfer into his or her junior year at a participating institution. At present, North Shore Community College is the only college which has a transfer agreement with the University of Lowell for all engineering disciplines currently offered through the College of Engineering. In addition, transfer agreements exist with Clarkson University, Merrimack College and Wentworth Institute of Technology. Transfer agreements are in progress with Worcester Polytechnic Institute and Northeastern University. Strong transfer relationships also exist with the University of Massachusetts at Amherst. Representatives from each of the aforementioned colleges and universities annually visit the College to discuss engineering educational and career paths as well as the present and future engineering opportunities available; several representatives also serve as guest lecturers for engineering and physical science courses. In addition, each of these institutions annually invites the engineering students to spend a day or weekend at their campus.

The program maintains a strong reputation for academic excellence. During the 1988-1989 academic year, twenty-four students completed the program; it is anticipated that twenty-five students will complete the program during the 1989-1990 academic year. Each student who completes the program is accepted for admission at a transfer institution. Eighty-eight percent of the graduates choose to pursue a B.S. in engineering; 12% of the graduates choose to pursue a B.S. in the physical sciences (chemistry, mathematics, physics). The graduates of the Engineering Science Transfer have been accepted at a variety of colleges and universities which include Amherst College, Boston University, Clarkson University, Merrimack College, Northeastern University, Smith College, Southeastern Massachusetts University, Tufts University, University of Lowell, University of Massachusetts at Amherst, Wellesley College and Worcester Polytechnic Institute.

At present, there are seventy-five students from thirty-five different communities enrolled in the program. Of this number, fifteen are women and thirty-four minorities.

The College and the program have demonstrated a commitment to increasing the availability of educational access opportunities to minority students. Since 1986, the College's efforts have been enhanced by the receipt of a state award from the Ronald E. McNair Fund, which aims to increase educational opportunity representation of minority students in scientific and technological professions. This grant aids in the recruitment and retention of minority students by covering the cost of tuition, fees and books, and by setting regularly scheduled meetings with academic tutors.

The minority recruitment and retention efforts have also received the financial support of many major corporations including General Electric, New England Biolabs, Raytheon, Digital Equipment Corporation, International Paper, Data General, Xerox, I.B.M., Hewlett-Packard, Eastman Gelatine, Polaroid, Draper Labs, Mitre Corporation, A.D.L., Pneumo Abex, Devcon and the Cox Foundation. Their significant contributions have enabled the College to financially and academically assist minority engineering students during the fall and spring semesters as well as support a summer preparatory program. In addition, many minority students have benefitted from corporate programs aimed at providing guidance and support through the use of minority role models.

ENGINEERING TRANSFER

Massachusetts Bay Community College
50 Oakland Street
Wellesley Hills, MA 02181
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President - Roger Van Winkle
Contact Person - Dr. Paul Anderson

The program is an articulated one, planned and coordinated by faculty and administration of the Mathematics and Science Division of Massachusetts Bay Community College and the engineering departments of surrounding four-year institutions. Its primary goal is to enhance articulation between a community college and four-year institutions with the student goal being a B.S. Degree in Engineering.

The program consists of a combination of general education courses such as English, history, economics, and literature along with the recommended technical courses in science and mathematics that basically correspond to the first two years of a four-year degree. The program is designed to address the inadequate mathematics background of the entering student. Pre-testings are administered, and the student who is unable to start at the calculus level takes pre-calculus first. This shifts the calculus-based science courses to a later time enabling the student to adjust to the curriculum at a slower rate than the average entering student at the four-year institution.

A modern engineering education should combine the best of a technical and liberal education. A study of the historical, literary, economic, and social contributions of society provides a basis for developing a sense of public purpose and concern, broadens one's judgement, gives meaning to experience, and enriches the personal life of the individual.

There is a serious problem, however, with the projected and the currently experienced sharp drop in high school graduates versus an increasing demand for graduate engineers. Not only is the high school population decreasing but interest in the engineering field is decreasing.

With this in mind Massachusetts Bay Community College has undertaken a two-step articulation program. The first step was to create transfer agreements with four-year institutions
(U. Mass, U. Lowell, Merrimack College, Southeastern Massachusetts University, Mass Maritime) that would enable all our graduates to transfer to a four-year institution with minimal credit loss. The second step involves the other end of the spectrum-contacting potential students. In the past couple of years more than eighty high school mathematics departments have been contacted. Academic materials have been forwarded to each department with the intent to establish communications with potential engineering students. Visits to the high schools have been made by the College faculty. The result has been that admission applications to the Engineering Transfer Program have tripled.

To enhance the Engineering Program, campus cultural and social activities have been organized. One of the major developments in the past few years has been the formation of an Engineering Club that affords students the opportunity to share common interests.
Practicing engineers from the Professional Engineers Society have been scheduled as guest speakers; nationally known speakers have visited the College to present their expertise through the Visiting Lectures Organization; and field trips to science museums have benefitted the student by seeing theory put into practice.

The success of this program can be measured, not only by the number of students who enter and successfully complete the program, but also by service to the community. The program is helping high school students to complete their secondary education, enroll at a two-year community college, transfer to a four-year institution, and return to the community on a professional basis.

FOSSIL ENERGY TECHNICIAN CERTIFICATE

Community College of Allegheny County
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West Mifflin, PA 15122
(412) 469-6363
President - Dr. Thomas A. Juravich
Contact Person - Patrick E. Gerity

The Fossil Energy Technician Program was developed as a result of the success of an initial request for non-credit instruction for a group of chemical technicians. In April, 1986, the United States Department of Energy/Pittsburgh Energy Technology Center (PETC) contacted the Community College of Allegheny County, South Campus, with a request for a course to upgrade the skills of their chemical technicians. The resulting customized chemistry course was so successful that a series of additional courses was offered. This success in motivating and enriching the technicians' work experiences led to a request from D. Fred Brown, PETC's Associate Director for

Research and Development, for a community college certificate program for the fifty-four chemical technicians at PETC.

The resulting customized twenty-two credit Fossil Energy Technician Program is a collaborative effort between the management personnel of the Office of the Associate Director of Research and Development of the Pittsburgh Energy Technology Center, and the Community College, South Campus, Dean of Instruction, Assistant Dean of Technologies, and Director of Continuing Education. The program offers one course per semester for six semesters. The required courses are Intermediate Algebra, Technical English, Technical Computing, Fundamentals of General and Organic Chemistry, Introduction to Analytical Techniques, and Energy Science and Technology. Upon successful completion of this program, the technicians receive a Fossil Energy Technician Certificate and will be eligible to continue their education toward an associate degree in the technological area.

A unique and innovative aspect of this program is the development of the four-credit course, Energy Science and Technology. South Campus received a $5,000 grant from the U.S. Department of Energy/PETC to design this course. The course addresses the present and future energy demands of our nation and world. It specifically emphasizes the coal fuel cycle and its impact on energy needs and the environment.

The Fossil Energy Technician Program has received recognition through a report in the **Community College Week** newspaper and an article in the **Pittsburgh Business Times**. This article featured the special business/industry partnership formed by CCAC, South Campus and the U.S. Department of Energy/PETC. It also emphasized the importance of the role the College has played in training and retraining technicians.

This program addresses both the "inverted degree" models and the learning for a lifetime concepts described in **Building Communities**. The skills of employed technicians are upgraded immediately, and they may continue in stages through an associate degree and on to more advanced degrees if they wish to do so. Predictions are that most American workers will experience three or more job changes during their working years; therefore, lifelong learning must be provided. Programs such as this collaborative effort between CCAC, South and PETC provide a practical first step toward upgrading skills through the lifetime of the worker.

GRAPHIC ARTS/PHOTO OFFSET

Triton College
2000 Fifth Avenue
River Grove, IL 60171
(708) 456-0300
President - Dr. James Catanzaro
Contact Person - Dan Johnson

The Graphics Arts/Photo Offset Program at Triton College has been in existence since the mid-1960s and from day one has done an outstanding job of preparing students who are seeking careers in the graphic arts industry.

This has always been an "open door" program, therefore, all students who are able to benefit from college-level instruction are accepted. Those students who may be slightly deficient are counseled and scheduled into the appropriate preparatory support courses which, upon completion, will allow them to be successful in the program.

Because of its many facets, this program is accessible to the physically handicapped as well as the hearing impaired. Arrangements are made to accommodate those students who may require special attention. The payoff is at course completion and graduation time when these students compete equally with the non-handicapped and become employed because of their capabilities.

The Graphic Arts Program is an excellent example of an industry/education partnership. Several major corporations have donated state-of-the-art equipment to the College while others have provided their latest equipment on a consignment basis. The students are the greatest benefactors of these arrangements.

Triton's Graphic Arts Program is continually being acknowledged in a variety of trade publications and journals as an excellent program. In 1988, the program received the coveted James M. Brahney award given annually by the In-Plant Printing Management Association for its excellence.

The offset printing industry in the greater Chicago area likewise is aware of what Triton's program has to offer. Adults who have been working within the industry return to the campus for occupational upgrading. This training can occur either through traditional means or by special programs designed for specific markets.

By keeping close contact with a very active industry orientated advisory committee, the Graphic Arts Program does indeed address the diverse needs of the total Chicagoland community which is the hub of world-wide offset printing.

The objectives of the program parallel the philosophy and objectives of the college district. Two of these objectives best describe the Graphic Arts Program:

> To promote the fullest education development of each student.
> To provide educational competencies based on the changing demands of a dynamic society.

The positive outcomes are the successes achieved by the program completers. Many of the earlier graduates are now in mid and upper management positions or in highly technical strata within the industry. Others have achieved four-year degrees in a variety of majors related to the printing industry.

The instructional staff members utilize career days, graphic arts contests and secondary/post-secondary graphic arts instructors' workshops to improve program articulation. All participants become very familiar with what the community college environment has to offer.

The pattern of this highly successful program can be adopted to other communities nationwide. The examples of instructor cooperation, advisory committee input, student recruitment and retention, coupled with a strong curriculum and quality equipment, spell success. A consistent seat count of 600 or more per semester is not accidental, especially when many of these spots are occupied by out-of-district, out-of-state and international students.

GRAPHIC COMMUNICATIONS TECHNOLOGY

Cincinnati Technical College
3520 Central Parkway
Cincinnati, OH 45223
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President - Dr. James Long
Contact Person - Peggy Harrier

The Graphic Communications Program was one of four programs formed when Cincinnati Technical College was established in 1966. At that time, the program educated twenty-five students a year. That number has grown to an average of 120 students each year, with sixty to eighty additional students from industry.

The purpose of the program is to educate students as industrial technicians in the graphic arts field and advance them in the printing industry where they find personal fulfillment and productive careers. The printing industry is the second largest manufacturing industry in the United States and the largest in Cincinnati with more than 1,000 printing plants. Cincinnati is the second largest flexography printing center in the United States and the third largest screen printing center in the country. The printing industry is Cincinnati's fourth largest employer with the sixth largest payroll.

Graduates begin their careers with an average compensation of $7.00 an hour, with the overall industry average compensation of $11.00 an hour in Ohio. The printing industry offers excellent opportunities and advancement.

The educational experience is reinforced by a cooperative education program where students spend up to five ten-week terms working in industry under the direction of professionals. Students are exposed to a wide range of practical work experiences to supplement the curriculum. Students are also required to complete a professional practice course to gain a working knowledge of what is necessary to have a successful work experience.

The Graphic Communications Technology Program is fortunate to have superior physical plant resources, supplies, instrumentation and equipment to meet current and emerging instructional needs. This is due largely to the generosity of the printing industry and the resourcefulness of our staff. Industry has routinely contributed an average of $50,000 a year, a tribute to our program excellence.

Laboratory experiences are enhanced by the state-of-the-art equipment including desktop publishing, color laser scanning, Linotronic typesetting and the latest advancement in computer applications. Open labs are available for additional training.

Students come from a wide variety of backgrounds. They include recent high school graduates, displaced workers, women returning to work, vocational rehabilitation students, and even graduates from baccalaureate programs who are changing careers. The program effectively serves both traditional and non-traditional students by providing a quality education that leads to immediate employment.

Many of our students come from traditional high schools and printing programs in vocational high schools where we actively recruit. Often when these students come they lack a strong drive and ambition to achieve. Our instructors encourage these students to seek opportunities and to get the most from the program that they possibly can.

The Flexographic Technical Association recently honored the Graphic Communications Technology by conferring two awards on our students for labels submitted in competition. Our program was the first in history to win two awards, and we are particularly honored by this achievement, considering our competition was the Rochester Institute of Technology, Cal Polytech, Western Michigan University, West Virginia Institute of Technology and other outstanding schools which did not win awards.

Cincinnati Technical College's Graphic Communications chapter of the Junior Craftsmen Club is the largest in the nation and affords students opportunities to interface with professionals in the field and gives printing companies opportunities to become involved with the students. The Heidelberg Eastern Company has offered to finance the club's trip to Detroit this spring so they can view the most advanced equipment manufactured by the Heidelberg Company. Other trips to leading trade

shows in Chicago, Indianapolis and elsewhere are financed by printing companies and allow the students to become knowledgeable regarding advances in equipment and the printing industry.

We have established cooperative arrangements with the College of Mount Saint Joseph where our students may elect to take art courses to supplement their graphic arts studies. We are extremely fortunate to have an alliance with the Rochester Institute of Technology, the "Harvard" of all college printing courses of study. Our students earn an associate degree and may then enter the Rochester Institute of Technology with status equal to those entering the third year of study. This arrangement is an economical way for our students to earn a four-year degree from the finest graphic communications program in the country.

Fortunately, many printing scholarships are available to students from foundations, professional associations and private corporations. This further demonstrates the commitment of the business community to the program and their confidence in our students.

Each semester, 100 to 120 students are enrolled in the Graphic Communications Program. Our student body is comprised of approximately 60% men and 40% women, but we are working to increase the percentage of women to 50%.

The Graphic Communications Technology has had 100% placement of its graduates during the last five years. In each graduating class since 1980, between 82% to 100% of our graduates are employed in the printing industry. Graduates from our Graphic Communications Technology are owners, chief executive officers, presidents, vice presidents, and managers, who hold numerous other positions vitally necessary to the industry.

Two to three times each year, training workshops are held for high school printing teachers to update their skills and knowledge of new technologies and equipment. An average of 500 high school students, parents and co-op employers visit and tour our facilities each year to learn more about our programs and the printing industry. Charities call upon us for printing services which we provide at little or no cost. We have produced work for the Cincinnati Zoo, the Hamilton County Parks, the Cincinnati Parks, Children's Hospital and many others. The Graphic Communications Technology has been the focus of media attention and press coverage.

A further external measure of the quality of the program is the fact that 100% of the students wishing to co-op are placed in jobs directly related to their field. The demand for our students is so great, at the current time, that there is a waiting list of potential employers.

HAZARDOUS MATERIALS TECHNOLOGY

Eastern Iowa Community College District
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Contact Person - Janice N. Friedel

In the 1980s the passing and implementation of legislation related to hazardous materials and mounting public concern brought the need for a trained hazardous materials technician to the forefront. National data indicated that by 1990 the job market would require 300,000 Hazardous Waste Management Technicians. The Eastern Iowa Community College District's review of the literature and related research indicated that there was no formal educational program yet available in the United States for the specific training of hazardous materials management technicians.

In 1985 the EICCD was persuaded by requests from both the Private Industry Council and the Area IX Planning Council for Vocational Education to conduct an investigation of national, regional, and local needs. This included a review of the literature and related research, and a survey of local employers. A Hazardous Materials Advisory Committee was formed, consisting of area employers both impacted by the federal and state rules and regulations and desiring trained technicians in the hazardous materials management technician area. This advisory committee continues to provide valuable information regarding the competencies to be required by entry-level hazardous materials management technicians.

A grant to develop the curricula was received from the U.S. Environmental Protection Agency in October, 1986. The project goal was to develop, pilot test and evaluate a Hazardous Materials Technician Program; the program was to be based on competencies defined and validated by local and national experts and employers.

Work on the project began in October of 1986. In the spring of 1987 a DACUM was held to determine more specifically the required entry level employment competencies. The resulting DACUM chart, listing the general areas of competence and their specific tasks, was validated and used as a guideline in the development of nine new Hazardous Materials courses and two additional chemistry courses. These eleven competency-based courses are in modular units and maintained on a computer database. Each course is updated annually to incorporate regulatory and legislative changes to enhance the course content. The modular format allows an instructor to quickly identify areas where a student may need more work and to provide individualized attention. All curriculum is available nationally for institutions interested in implementing a program.

These courses are the foundation for the flexible exit point program. A two-year A.A.S. Degree is available as well as an eighteen credit-hour certificate. The A.A.S.

Degree is built upon a strong general education core curriculum. Emphasis is placed on the development and exercise of oral and written communication skills. These skills are critical components shown by students employed full-time in the field. This eighteen-credit "fast track" program is geared especially for those persons already established in industry. Students seeking this option have often already earned a four-year or graduate degree. Thus, the student spectrum in the program can range from the recent high school graduate to an older student with an M.S. or Ph.D. in chemistry. This is truly an opportunity for meeting the training/retraining needs of the workplace and workforce.

Initial enrollment figures in the fall of 1987 surpassed all projections and the availability of instructors knowledgeable in the Hazardous Materials field was scarce. To accommodate the full-time employed student, many classes were scheduled to be held in the evenings. The EICCD TIE (Televised Interactive Education System) was enlisted to fulfill this demand. The TIE system has allowed limited instructors to extend HAZMAT educational opportunities to all the residents of our large and diverse community college district.

Funding for the first two years of the program's operation was received through a competitive grant awarded by the Iowa Department of Education. The Iowa Department of Economic Development recognized the importance of a qualified workforce in the hazardous materials field by awarding funds for the acquisition of equipment for the program.

To encourage high school student enrollment, the EICCD submitted and received a second grant from the U.S. EPA in 1989 to develop a fully articulated Environmental Education and Technician Preparation Program with local high schools. This program is to serve as a national 2+2 model for vocational-technical education.

The program is in its third year of operation. Enrollments continue to be healthy and both student and instructor response have been extremely favorable. Weekend "hands on" training activities have been instituted with various local response groups for student convenience and site availability.

Student success in the program can be documented by the results of graduate surveys mailed to graduates of all programs. The FY 88 graduate survey results for the Hazardous Materials Technology graduates show greater than 77% are employed in a field closely related to hazardous materials. The average salary reported was $14.65 per hour. Individual success stories also abound; one student began his own environmental company.

The program discussed above is for credit. From this credit foundation has evolved numerous short term noncredit training programs designed to fulfill the needs of local industries. Examples of such training include: Worker-Right-To-Know, Community-Right-To-Know, Asbestos Abatement Worker and Supervisor Training and Hazardous Wastesite Worker and Operator Training. Work is continuing on the development of additional short term programs to meet the needs of the community and local industry.

By working together with local business and industry, the EICCD has responded to their needs by developing, implementing and disseminating a Hazardous Materials Technology Program. The flexibility of the program caters to the nontraditional students while still addressing the needs of the traditional student. The recent 2 + 2 articulation project will inform, educate and prepare high school students for entry into Environmental Science/Hazardous Materials Technology programs. The Hazardous Materials Technology Program, coupled with the numerous evolving noncredit continuing education programs which keep the workforce up-to-date and well-educated, certainly reflects the spirit, recommendations, goals and visions put forth in **Building Communities**.

HAZARDOUS MATERIALS TECHNOLOGY

Front Range Community College
3645 W. 112th Avenue
Westminster, CO 80030
(303) 466 - 8811
President - Dr. Cary A. Israel
Contact Person - Dr. Gwendolyn R. Burton

The Front Range Community College Hazardous Materials Technology Program (HAZMATT), has been very successful and is widely recognized for helping to meet the need for trained workers in the hazardous materials and waste industry, by offering an Associate of Science Degree in Hazardous Materials Management (sixty-five credit hours) and a Certificate in Hazardous Materials Technology (forty-five credit hours). Both the degree and the certificate require students to take seven core courses in hazardous materials (Hazardous Materials Management; Occupational Health and Safety; Environmental Laws and Policies; Site Investigation; Waste Minimization; Treatment, Storage, and Disposal; and Environmental Issues Seminar) and chemistry, math, computer, English, biology, and geology courses.

The degree program has had over 350 students. Most students obtain jobs, full or part time, during their training; many earn >$25,000/yr, with employers such as County School Districts, Browning-Ferris Industries, Bonder Clegy Laboratories, Chemical Waste Management, Chen-Northern, Dames and Moore, E G & G, Engineering Science, EPA, Havelick Asbestos, Jacobs Engineering, Layne Western Liedtke Operating Service, Regional Transportation District, Rockwell International, Stearns-Roger Div., Waste Management of NA, West Hazmat Inc., Roy F. Weston., Rockwell International, and Woodward Clyde Engineers. Approximately sixty new students, male, female, and all races, enter each semester; many with Bachelors and Masters Degrees who are seeking to retrain for new careers. Upon completion of the AS Degree, students may take exams to be Certified Hazardous Waste Technician (National Environmental Health Assoc.) and Certified Hazardous Waste Specialist (World Safety Org.).

FRCC HAZMATT classes are offered on four campuses and two industrial sites (Rocky Flats Nuclear Weapons Plant, Browning Ferris Disposal Site).

Classes are scheduled for working students, daytime, evening, weekends, and alternating MW with TTH (for firemen). Three full time faculty with Ph.D. and M.S. Degrees are certified Hazardous Waste Specialists (NEHA); and the fifteen adjunct faculty have Ph.D., M.S. or J.D. Degrees and specialized certificates.

Continuing Education non-credit HAZMATT classes are also offered in Occupational Health and Safety Certification; EPA-accredited Asbestos Worker, Supervisor, Inspector and Manager Certification; Emergency Response Certification (five levels); Confined Space Entry Certification; and DOT Regulations for Hazardous Materials Haulers, for industry, business, government, and other schools. Over 700 students of all ages and races have been trained, earning more than $230,000 for FRCC to-date. Specific contract training to meet the particular needs of individual companies has resulted in a $540,000 training program for Browning Ferris Industries, a $7,000 emergency response training for the Denver Regional Transportation District, and an emergency response training program for fire districts in several counties in two states.

Governor Romer's Job Training Office through its STEP Program (Skills Training for Environmental Programs) awarded $50,000 in 1989 and $53,000 in 1990 for training dislocated, unemployed workers to be employed in Colorado's waste remediation projects.
FRCC was a cosponsor and provided two moderators and a panelist for the first Governor's Conference on Hazardous Waste Management. Presently, the department is cosponsoring and planning a Conference on Waste Minimization with CACI (Colorado Association of Commerce and Industry).

This program has become a model program for more than twenty other colleges seeking to develop similar curricula for training hazardous waste workers. Also, the program is published in ERIC, CORD (Center of Occupational Research and Development) Publication and the EPA Training Centers Publication. National presentations have been made at National Environmental Health Association Conventions (1988, 1989, & [invited] 1990); AACJC, 1989; and HAZMAT '90 Convention (1990).

As indicated by these accomplishments, this department has worked diligently at 'bridging the gaps' by intradepartmental and interdepartmental teamwork, working with other colleges and universities, and servicing the community, business, industry, and government by training workers to remediate and preserve our environment to meet **Building Communities** requirements.

The people working in the HAZMATT Program continue to deal with all the challenges involved in developing a new program at the leading edge of today's technology, with high spirits, energy, and a cooperative attitude.

MACHINE TOOL OPERATION

Northeast Wisconsin Technical College
P.O. Box 19042
Green Bay, WI 54307
(414) 498-5462
President - Dr. Gerald Prindiville
Contact Person - Roger Schauf, Al Hiles

Machine Tool Operation at Northeast Wisconsin Technical College is a one-year program preparing students for entry level jobs in industrial machine trades. Both Green Bay and Marinette campuses offer the program, providing greater access to the training for students and employers in Northeast Wisconsin. An advanced program entitled Machine Tooling Technics is offered to graduates of Machine Tool Operation.

Each campus has Computer Numerical Control and Computer Aided Manufacturing equipment. The CNC and CAM courses are separate, distinct courses to allow the student more time to become proficient on the high-tech equipment. The diversified curriculum gives students an excellent versatile education. Classes include metallurgy, welding, blueprint reading and sketching, math, communication and writing skills. Students use NWTC's Placement Office and have computerized resumes to send to employers.

Our administration has always been very supportive of new technology and has helped secure state and federal grants for modern equipment. They understand the advances technology has made since they were instructors. The Dean of Trades and Industry is a former NWTC machine tool instructor. The Associate Dean of Trades and Industry taught high school machine shop classes.

One way we keep track of industrial trends and training needs in Northeast Wisconsin is through our Machine Tool Operation's Advisory Committee which is composed of employers and employees as well as NWTC instructors and administrators. They help ensure that our equipment purchases and courses fit the training needs of industry. When possible, their companies donate high-tech equipment to the College. For example, a large manufacturer of paper converting machinery has donated specialized equipment and another donates material on a regular basis. Corporations benefit because their future work force will have hands-on experience on the latest high-tech machinery, and our graduates benefit because they are prepared for today's jobs.

Our instructors have proven invaluable to industry in northeast Wisconsin. Corporations are continually upgrading the skills of their current employees and use the facilities of NWTC and the expertise of NWTC's instructors. The instructors work through NWTC's Center for Service to Business and Industry to train employees and upgrade their skills on the CNC, CAN, conventional machining and blueprint-reading. In addition to teaching night classes geared toward these employees, we instruct

specialized training programs during off-time at the College. For example, Procter and Gamble employees take a class during the week of NWTC's Spring Break.

The occupational experience of the instructors ranges from six years to twenty years. Instructors hold Journeymen cards including Machinist, Tool Maker, Trimmer Die Maker and Die Sinker. Educational backgrounds include Machine Tool Operation Associate Degrees, B.S. and M.S. Degrees. All instructors are members of the Wisconsin Association of Machine Tool Instructors. Other memberships include: the Society of Manufacturing Engineering, United States Apprenticeship Association, Northeast Wisconsin Apprenticeship Association, Northeast Wisconsin Vocational Association, Wisconsin Vocational Association and the American Vocational Association. Instructors are involved in Kiwanis Club, Tri-County Safety Committee, Civil Air Patrol and the Machinist Apprenticeship Program. They are continually furthering their own education by enrolling in university courses, attending seminars on new equipment, and taking NWTC courses relating to instruction and their field.

The success of the students is extremely important to the instructors. The instructors work closely with the students on their VICA (Vocational Industrial Clubs of America) projects. We have had several state VICA officers including president and secretary. Students have won awards at both the state and national competitions. Through VICA, students have the opportunity to develop character, leadership and career skills. Realizing the value of VICA to the personal growth of the students, NWTC hosted the state VICA Competition two years in a row.

The instructors are interested in helping high school students realize how advanced the field is becoming. Each year, over 1,200 high school students attend NWTC's Tech Fair where NWTC instructors judge the live and display events.

The Machine Tool Operation graduates have a high employment success rate. Of the 1989 Machine Tool Operation graduates available for employment, 88.5% are employed in positions related to their training. They are: Machine Tool Operators, Machinists, CNC Operators, Tool and Die Makers and Precision Inspectors. Salaries range from $823 to $2,129; the median monthly salary is $1,452. The 1979 graduates are earning a salary mean of $1,800 to $2,000.

MANUFACTURING SYSTEMS TECHNOLOGY

Dyersburg State Community College
Lake Road, P.O. Box 648
Dyersburg, TN 38024
(901) 286-3204
President - Dr. Karen A. Bowyer
Contact Person - Gary Cutler

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Dyersburg State Community College's Center of Emphasis in Manufacturing Systems Technology (MST) has been highly successful during its first three years. Many MST students have been hired, promoted, or received salary increases as a direct result of the training they received in the MST Program. Most of our students are currently employed and taking courses on a part-time basis. Others, after taking only a few MST courses, are employed before completing the program. The program produced its first graduates in May 1989, and all are currently employed by local industries. One industrial leader sated that the MST Program has targeted skills and knowledge that local industry needs, and as proof of this, a majority of their new employees recently hired were products of DSCC. The demand for our graduates has been so great that we have assigned one of our faculty members to devote 50% of her time to recruiting new students.

EXTERNAL RECOGNITION: DSCC has received nationwide, regionwide, statewide, and local recognition for its Center of Emphasis in Manufacturing Systems Technology. In October 1987, the National Council for Occupational Education (NCOE) awarded DSCC one of three nationwide Partnership Awards for the cooperation in the partnership between government, industry and educational institutions toward the work done through the Center of Emphasis. DSCC was selected to make a presentation about our Center of Emphasis to the 1987 Regional Conference of the American Technical Education Association. This presentation was well attended and audience response was outstanding. In April 1988, DSCC presented a program entitled "Dyersburg State Provides the Competitive Edge for Economic Development" to the statewide meeting of faculty and administrators of community colleges and technical institutes. Since this presentation, the Center of Emphasis at DSCC has become a statewide model of how educational programs can stimulate economic development. The Tennessee Higher Education Commission has indicated that the MST Center was one of the major successes in the fourteen two-year colleges in Tennessee.

Building Communities: "We urge that alliances with employers be carefully integrated into existing community college programs and interests. The educational and civic significance of such partnerships must be defined and continuously sustained."

In 1984, Dyersburg, Tennessee, a small rural city of approximately 18,000 population,

was considered to be economically depressed. There was a high unemployment rate (over 9%) and some major manufacturing employers had closed plants. Dyersburg State Community College mirrored this depression through declining enrollment. In late 1985, Dr. Karen Bowyer, President of Dyersburg State Community College, and other college administrators saw a way to improve the College and the community through a partially state supported Center of Emphasis program. DSCC, along with representatives from local businesses and industries, designed a program to provide a comprehensive automated manufacturing training program to upgrade the skills of industrial employees by offering training in the latest technologies. The program would strengthen the existing DSCC degree program in Industrial Electronics by building the industrial automation technologies into the curriculum.

Since establishing the Manufacturing Systems Technology Program, DSCC has continued to adapt the program to meet the needs of local industries. For example, one semester an existing course was modified to meet the specific needs of a local industry, and classes have been held in-plant and at special times. Dyersburg State's MST Advisory Committee, comprised of twenty members (the majority of whom are industrial representatives), has been very active in all phases of the Center from its beginning to the present. The committee continues to assist in determining current educational needs of local industries and to make recommendations.

UNIQUE CHARACTERISTICS: The Industrial Automation Program at DSCC is a perfect example of how business, government, industry and education can work together for the benefit of the total community.

In early 1986, while the Center of Emphasis was in the planning stage, the local Chamber of Commerce asked DSCC to assist them in welcoming prospective industries to this area. We were asked to describe our proposed Center of Emphasis and total college program to visiting teams from prospective industries. During 1985-87, there were five major new industries that decided to move into our area and there was one major industrial expansion. Three of these new industries indicated publicly that the DSCC Center of Emphasis, which could provide them with a trained employee base, was major factor in their decision to locate in this area. One of these companies, even before their final decision to locate here, sent the College $5,000 toward the $66,000 needed to match the state funding of $132,000. The new industries and expansions since 1985 have created 3,031 new jobs and provided a capital investment of $479,217,000.

Since that time, DSCC has established a successful Manufacturing Systems Technology Program. All of the graduates of this program have been employed by local industries. Our local unemployment rate has decreased to less than 4%. Last semester the College had a record enrollment. The partnership between DSCC, the state of Tennessee, and local institutions in the development of the new industrial automation program has been a major factor in the economic expansion of this area. During its four years of operation, local industries have contributed $264,000 which has been matched by $528,000 from the State.

MECHANICAL ENGINEERING TECHNOLOGY

Cincinnati Technical College
3520 Central Parkway
Cincinnati, OH 45223
(513) 569-1500
President - Dr. James Long
Contact Person - Donald Youngpeter

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Although not required for employment in the Mechanical Design Field, all second year students are encouraged by the MET faculty to obtain Society of Manufacturing Engineers Certification. To obtain this certification, the students must pass a rigorous four hour exam on engineering fundamentals. This exam has been offered by CTC since 1984, and 48% of the MET graduates have passed the exam, (which is excellent for two-year graduates when noting that the same exam is offered to four-year degree graduates in Engineering and Engineering Technology). In 1985 and 1986, CTC was the second largest test site in the nation with over sixty students taking the exam each year. In 1984, CTC students achieved a 70% pass rate. According to SME this was the highest one day pass rate in the history of the exam.

One of twenty-five such programs in Ohio, the MET Program at CTC has an outstanding graduate placement record. An important aspect of full-time graduate placement is the percentage of graduates placed in technically related positions. CTC-MET graduate employment in technically related positions far exceeds the norms for Ohio two-year graduates, both overall and in specific categories.

In June of 1989, the MET Program conducted the bi-annual survey of its graduate employers. These employers were asked to rate their CTC-MET graduate employees relative to their other employees. Averages are listed below. (Low=1, High=5)

Quality of Work - 4.5	Quantity of Work- 4.0	Initiative - 4.2
Promotability - 4.2	Trainability - 4.6	Attitude - 4.5

In June of 1989, the MET Program conducted a survey of its 1982 through 1988 graduates. Some of the survey highlights include:

93% Employed Full-time, 7% Continuing Education Full-Time
98% Employed in Technically Related Field
$17,350 Avg.Starting Salary, $26,650 Avg.Current Salary: 54% Increase
100% Promoted or had Job Responsibilities Increased Since Graduation
41% Continuing Education Toward BS Degree, 7% Full-Time, 34% Part-Time

EXTERNAL RECOGNITION: Based on an April 1987 independent survey of all Ohio colleges, the MET Program at Cincinnati Technical College has the best equipped academic CAD facility in the state. Since this survey was published, the MET CAD facility has been upgraded twice with the latest in software and hardware.

In 1989 the MET Program was chosen by the College (once again) to receive a State of Ohio Academic Challenge Grant. These grants will extend over the next three biennia and will provide a total of at least $250,000 in funds.

In 1987, the CTC-MET Program was chosen as one of only forty-four finalists in the 1987 Ohio Program Excellence Competition. This competition is open to all college and university programs in the state.

The Accreditation Board for Engineering and Technology (ABET) is recognized as the national accrediting authority concerning the quality of engineering and engineering technology programs in the United States. The Technology Accreditation Commission (TAC) of ABET is responsible for the evaluation of programs in engineering technology. Both the day and evening CTC-MET Programs are accredited by TAC-ABET. There are only sixty-three accredited two-year MET Programs in the nation. Of these sixty-three programs, only forty-three are accredited for both the day and evening programs.

BUILDING COMMUNITIES: The Alice P. Bruckman award for teaching excellence and the Clifford House award for excellence in co-op education coordination are awarded annually at CTC. The 1986 recipient of the co-op coordinator excellence award was Jerri Thomas, the MET cooperative education coordinator. In the five-year history of these awards, the MET Program is the only program at CTC to have an award winner in both categories. This speaks to the recommendation regarding recognizing outstanding teaching.

Unique Characteristics: Over the past twenty-two years, students in the CTC-MET Program have held a variety of technically related co-op jobs with numerous local companies. The two-year MET curriculum combines five ten-week terms of school with five ten-week terms of co-op work experience. Upon graduation, the student has earned an Associate of Applied Science Degree, along with one full year of related work experience. Students in the MET Program typically lead all students at CTC in co-op earnings ($2,000 to $2,500 per quarter).

The Finite Element Method of Stress Analysis (FEM) is an advanced computer numerical technique typically reserved for graduate level engineers. At CTC, MET students are exposed to this method using commercially available software. MET students have written a multitude of user guides for this particular software, illustrating their intimate understanding of its operation. FEM is an optional project for the MET-7158 Design Project. Over the years, it has been a popular choice with the students. Students selecting the FEM option for this project perform Finite Element Analysis on parts and machine elements supplied by their Co-op companies. Most of these companies do not have access to Finite Element solutions.

PROJECT STEP II, INDUSTRIAL MANUFACTURING TECHNOLOGY

Sinclair Community College
444 West Third Street
Dayton, OH 45402
(513) 226-2570
President - Dr. David H. Ponitz
Contact Person - Harold Jones

During the past eight years, Sinclair Community College has had a unique cooperative project with the Dayton chapter of the National Tooling and Machining Association (DTMA). Entitled Project STEP II (Success through Training and Education of Personnel), this experience is an intensive one-year, certificated program in tool and die manufacturing involving 600 hours in machine operations laboratories and 400 hours of classroom training. The DTMA awards the STEP II graduate a Certificate of Tradesman, which is recognized across the United States by tool and die manufacturers who are members of the National Tooling and Machining Association (NTMA), and is the equivalent of a one-year industrial apprenticeship.

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: One significant test of the quality of a program is the percent of graduates who find jobs. To attest to the high quality of the Project, 100% of the STEP II graduates (a total of 230 students) received a job at graduation each year from 1982 to 1989.

EXTERNAL RECOGNITION: Sinclair was selected as the host site for the 17th Annual National Apprenticeship Contest (April 2-6, 1989) sponsored by NTMA. According to Don Nicholson, NTMA training director, "The Sinclair facility is the finest training facility I've seen to hold a contest because all of the machines are up-to-date and of high quality. The machines are as close to being equal as you can get, within 0.002 inch. That makes for a very even contest."

STEP II has received national attention through articles in numerous publications including: **Metalworking News** (November 27, 1989), **NTMA Record** (June, 1989), **Modern Machine Shop** (June, 1989), **NTMA Record** (April, 1989), **NTMA Record** (December, 1986).

BUILDING COMMUNITIES: Project STEP II is a textbook example of an alliance or partnership with employers. The Dayton Tooling and Machining Association donates approximately $10,000 per year in supplies and materials for STEP II students. DTMA member companies think so highly of the program that they hire all graduates.

UNIQUE CHARACTERISTICS: One of the greatest assets of this program is its vast facilities and equipment in the Governor James A. Rhodes Machining Laboratory. Totaling over 10,000 square-feet and with equipment valued in excess of $2.0 million, the laboratory can accommodate over fifty students at a time. To attest to the quality of the facilities, the Associate Director of the Training and Consulting Center at

Muskingum Technical College recently remarked: "On a scale of one to ten, I would give your laboratory facilities at least a twenty-five." The superb facilities and equipment available stand out as significant assets of this program.

Recent evaluations of the success of STEP II graduates by local employers in their organizations produced the following results:

Percent	Rated Following Criteria Average or Above Average
100	Attitude--Application to Work
100	Dependability
100	Quality of Work
100	Ability to Learn
100	Relations with Others
100	Quantity of Work
100	Regular Attendance
100	Regular Punctuality

The following are employer comments of STEP II graduates:

> "--- has been exceptional as a trainee in our trade. He is quick to learn the operation and setup of various machines as well as using prints to carry on a project with minimal supervision. He has truly been an asset to our company and the industry." (Minco Tool and Mold)
>
> "Our STEP II employees have been exemplary in performance, capability and attitude. They go from entry level to contributory in a very short time." (Machine Products Corporation)
>
> --- has been a valuable asset to this corporation. He is coming along nicely, no doubt that some day he will be a part of our management team! P.S. If you have any others like this one, we'll take all we can get." (Industrial Grinding Incorporated)

The project enjoys a successful record for obtaining grants. In the past three years it has received over $200,000 in grants and donations including a major project to recruit and retain minority and disadvantaged students in STEP II. In a cooperative internship, DTMA member companies have agreed to hire all of the disadvantaged students part-time during their STEP II training.

TECHNICAL COMMUNICATIONS

Gateway Technical College
1001 South Main Street
Racine, WI 53404
(414) 631-7326
President - Dr. John R. Birkholz
Contact Person - Richard Gage II

DEMONSTRATED STUDENT SUCCESS AND OUTCOMES: Our students continue to be employed very quickly upon completion of this fourteen credit certificate. Many have successfully found employment in the technical communication field before they had finished with their coursework based on proficiencies demonstrated in their technical communication portfolio. Gateway faculty are also enrolling in our certificate courses. A third group of students seeking this certificate and successfully moving into the field of technical communications are graduates with associate and baccalaureate degrees who have not found satisfactory employment in their fields.

EXTERNAL RECOGNITION: Recognition has been demonstrated in the following ways:
The Allen Bradley Corporation of Milwaukee has asked to participate in a "Coop" agreement with the District when we get a two-year Technical Writing Associate Degree Program.
The Wisconsin Natural Gas Company called and asked our students to write and publish a special issue of their magazine spotlighting community restaurant owners.
Our Ad Hoc Technical Writing Program Advisory Committee represents thirteen Wisconsin Businesses, some of whom have a two hour drive to attend out meetings.

LDING COMMUNITIES: The program meets nine recommendations in **Building Communities**. One recommendation states: "The community college should encourage greater intellectual and social contacts among students at the institution, seeking to bring together older and younger students and those from different ethnic and racial backgrounds so that learning for all can be enriched."

We would expand the Commission's recommendation in this case to read: "The community college should encourage greater intellectual and social contacts among students at the institution, seeking to bring together older and younger students and those from different ethnic, racial and occupational backgrounds so that learning for all can be enriched." In the Technical Writing Center, we achieve this.

UNIQUE CHARACTERISTICS: In one classroom setting, our students consist of employees being retrained; Gateway Technical College faculty; two-year associate degree students from medical, business, data processing, or industrial programs wanting to enhance their employability; and four-year degree holders who have not

found successful employment. This environment provides for the young, the middle aged, and the older person the opportunity to interact in the classroom setting--maximizing learning and social interaction.

We do this by offering all the following courses on a staggered/stacked start basis.

Technical Writing-Advanced
Technical Writing-Audio/Visual
Technical Writing-Sales Promotion
Technical Writing-Layout/Design
Technical Writing-Desk Top Publishing

Students work on a project of their choosing; the project materials become the portfolio they take to prospective employers.

Our business/industrial linkage includes members of the Wisconsin Technical Writers Association, Society for Technical Communication, and the Association of Teachers of Technical Writing, of which the Program Contact, Richard Gage is a member. It also includes members of the business, the industrial, and the social service community with whom Mr. Gage has worked in either a technical writing supervisory capacity or a contract consultant capacity.

Letters From Previous Exemplary Instructional Program Award Winners

[Ed. Note: Rio Salado Community College, winner of the 1989-90 NCIA Exemplary Instructional Program Award, and Guilford Technical Community College and Hocking Technical College, co-winners of the 1988-89 Award, were asked to respond regarding reactions to the Award on their respective campuses. Below are the responses received by NCIA.]

Reaction at Rio Salado Community College
Chemical Dependency Program
Barbara Poe, Contact Person

The response to our award has been very positive at both a local and national level. We have had a variety of calls from colleges and universities in other states who have been interested in information regarding the content and format of the Chemical Dependency Program. We have been pleased to respond to their requests. Many of our local newspapers printed information regarding the award, and the 600 students currently enrolled received a flyer with the information. In addition, we printed information about the award on the inside flap of our new brochure which is sent to all prospective and enrolled students. Congratulatory responses have been overwhelming, and enrollment for Fall 1990 is substantial.

Again, I thank you for the honor!

Reaction at Guilford Technical Community College
Customer Service Technology
Donald W. Cameron, Contact Person

GTCC is pleased and honored to have won this award over 600 other programs submitted from 1300 community colleges nationwide. The Customer Service Advisory Committee, which was directly responsible for the implementation of the program, agrees that the award lends credibility and respect of the program in the eyes of the community. Because of the correlation between the Customer Service Technology Program and the needs of business and industry, the Program has received local newspaper and television coverage.

To date there have been ten graduates of the two-year program and forty-eight recipients of the one-year certificate.

The chairperson of the Program works very closely with the Advisory Committee to determine skills and training needs for the Customer Service professional.

The CST Program has been selected as a pilot test for the City and Guilds of London. Ultimately, a standardized test will be developed for certification of Customer Service professionals in the United States and Europe.

Reaction at Hocking Technical College
Ceramic Engineering Technology
Judy Sinnott, Program Contact

Anytime a program receives an award there are benefits such as good press and increased name recognition. Hocking is most fortunate to receive excellent coverage from print and broadcast media. Winning an award always means instant press and bigger headlines so that certainly was a considerable benefit.

The Ceramic Engineering Technology Program is difficult to explain in twenty words or less. Any time that we have a chance to talk about the specifics so more people understand what the program is and what a ceramic engineering technician does, it is a welcome opportunity.

I believe also that with each recognition a program gains more credibility and grows a little stronger, more solid. Not every outcome is tangible, neither are those outcomes apparent but they're there and they can be felt.

The Award was proudly received by the faculty. We considered this recognition to be a complement of a job well done -- presented to us by a group with a perspective that is more purely educational, and perhaps more objective, than our usual industrial advisory and placement contacts. It provided reinforcement of support for our efforts to provide the best ceramics education possible within the confines of a two-year college.

Probably the most positive responses to this award were expressed by members of our industrial Advisory Committee. They were delighted and grateful to learn that their support and input were being implemented in a manner which achieved this recognition.

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MEMBERSHIP

Membership is open to all who are committed to the purposes of the organization. The dues schedule and the application form are contained below. (For removal cut along the dotted line.)

NCIA Membership Application/Renewal

Membership Information:

- Individual Membership is $15 per year.
- Institutional membership is based on the number of administrators listed:

up to 15 instructional administrators.	$ 75.00	from 26 through 45	225.00
from 15 through 25	125.00	over 45	335.00

- Multi-College districts require separate memberships for each college.

( ) I would like to apply for an individual membership in NCIA.
( ) I would like to apply for an institutional membership in NCIA. I have attached a list of other instructional administrators (please include titles) to be included as members and to receive newsletters.

Name of individual or
institutional contact person _____ Title _____

College _____ College Phone _____

College Address _____
(Street) (City) (State) (Zip)

Make checks payable to: NCIA. Mail check or purchase order (Federal Tax I D #52-116312) and application form to:
Donald Goss, Executive Secretary, NCIA, P.O. Box 198642 Nashville, TN 37219-8642

ABOUT NCIA

The National Council of Instructional Administrators (NCIA) is a private, nonprofit, professional organization affiliated with the American Association of Community and Junior Colleges.

The Council is the national voice for the opinions and concerns of administrators of instructional programs. The Council is consulted by the leadership of the American Association of Community and Junior Colleges and by other national organizations on matters of importance regarding instructional programs.

Three times a year the Council publishes a Newsletter, a volume of exemplary instructional programs, as well as a literature search on a vital instructional topic. Regional and state workshops are sponsored, and major presentations made at various annual conventions. Awards are presented to the Instructional Administrator of the Year, the Exemplary Instructional Program of the Year, the Outstanding NCIA State Coordinator, and to the individual who has provided Outstanding Service to Community College Instruction.

ERIC Clearinghouse for
Junior Colleges JUL 19 1991